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MELODY AND HARMONY

A TREATISE FOR THE TEACHER AND THE STUDENT

BY

STEWART MACPHERSON

BOOK I	BOOK II	BOOK III
MELODIC MOVEMENT	ELEMENTARY HARMONIC PROGRESSION	ADVANCED HARMONY

LONDON: JOSEPH WILLIAMS

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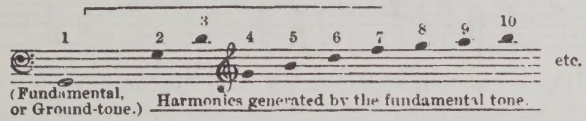
CHAPTER XX.

SECONDARY CHORDS OF THE SEVENTH.

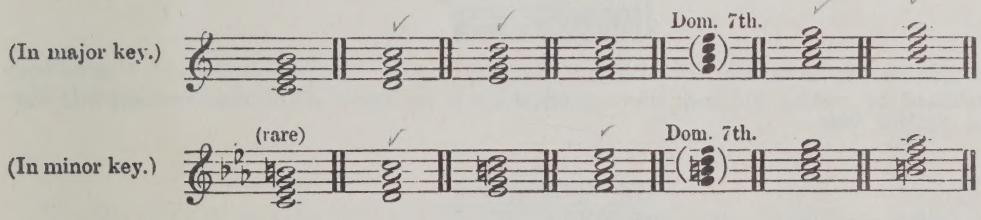
1. The name Secondary 7ths is given to those chords of the 7th—mainly diatonic, but occasionally chromatically "altered"—which are not formed like the Dominant 7th, and therefore do not contain a major 3rd, perfect 5th and minor 7th from the root.

*** The chord of the Dominant 7th will already have been recognized by the student as a dissonance readily acceptable by the ear. A possible reason for this is that its several sounds correspond to those of a fundamental tone and its earlier and most noticeable harmonics (or "upper partials"), *e.g.*—



Nature thus familiarizing the ear with this particular combination. Chords of the 7th formed upon this principle (such as the Dominant 7th and certain chromatic chords to be spoken of in later chapters) are for this reason sometimes called Fundamental (or *Primary*) *7ths*; the others, owing to their more artificial construction, *Secondary 7ths.*

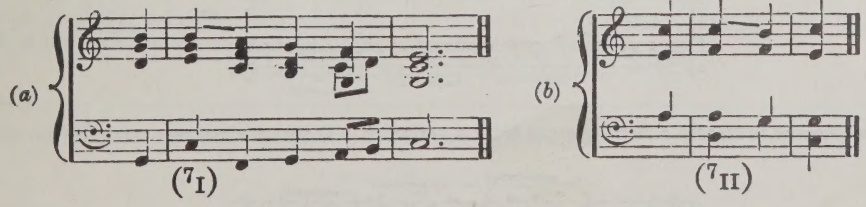
2. The importance of Secondary chords of the 7th is considerable, modern composers using them with increasing frequency and with striking effect. They can be formed diatonically upon every degree of the major or minor scale except the Dominant, *e.g.*—



N.B.—The above chords should be carefully played, their special character and their varying degrees of harshness being noted and memorized. It will be observed that, after the Dominant 7th, those chords having a minor 3rd and minor 7th from the root possess a milder and less biting dissonance than the others.

NORMAL RESOLUTION OF SECONDARY 7THS.

3. Formerly, a Secondary chord of the 7th was invariably resolved upon a triad, or chord of the 7th, whose root was a 4th above (or 5th below) its own root, the 7th itself falling one degree to the 3rd of the resolution-chord :—

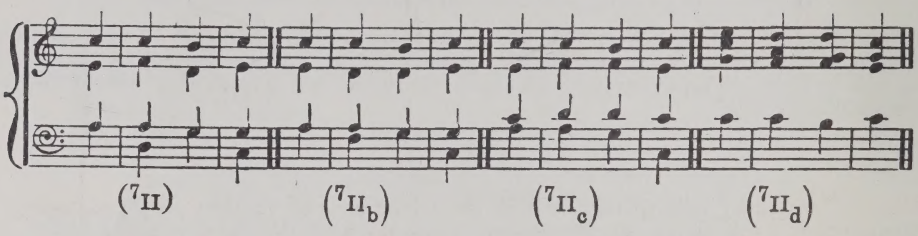


This resolution may still be regarded as the normal one, and its effect is invariably vigorous and strong.

N.B.—The 3rd is free in its progression; in the chord of the Dominant 7th the 3rd rises a semitone, as it is the Leading-note of the key.

4. In the music of the older writers (*see* example from Corelli in the foot-note below) the 7th—the dissonant note—was always *prepared, i.e.*, sounded as a concord in the preceding chord, and in the same part. Later composers freely dispense with this preparation which, however, often tends towards smoothness of effect.*

5. Secondary chords of the 7th, having four notes, obviously possess three inversions :—



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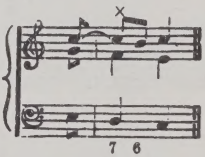
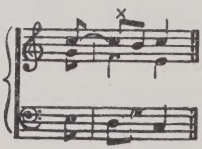
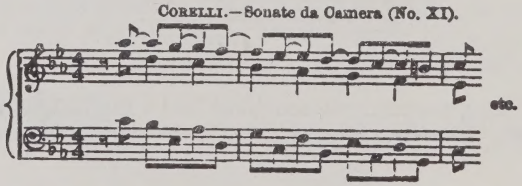
* It is probable that the Secondary 7th arose in the first instance from a device dating from the 17th century, by which a suspension of 7-6, such as the following :—

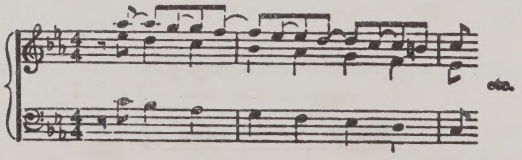


was embellished by making the bass move a 4th up or a 5th down, at the same moment that the suspension resolved, thus :—

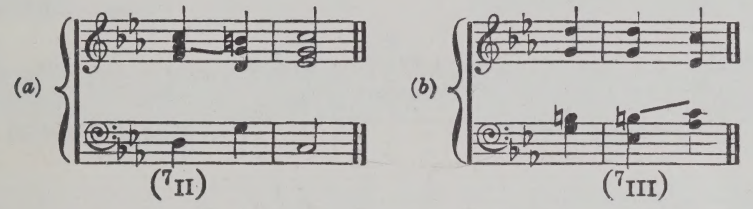


when the 7th from the bass ceased to be a mere suspension, and became an essential part of a *chord of* the 7th resolving upon a new harmony whose root was a 4th higher. Sequences of such chords are frequently to be found in the works of the earlier masters, *e.g.*—

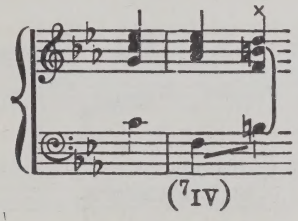
CORELLI.—Sonate da Camera (No. XI).

The above passage is clearly a development from a series of 7-6 Suspensions :—



6. The chords of the 7th upon the Supertonic and Mediant of the Harmonic minor scale, it should be remembered, contain respectively a diminished and an augmented 5th, each of which requires to be resolved—the former *downwards* by step of a semitone, the latter *upwards* by a similar step, *e.g.*—

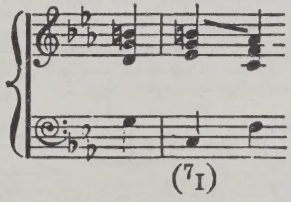


7. Certain Secondary 7ths (particularly in the minor form of the key), by proceeding to a chord whose root is a 4th above, would necessarily resolve upon *dissonant triads*, *e.g.*—



producing a very crude result. The "normal" resolution is therefore unavailable in these cases,* except sometimes in the course of a Sequence.

8. The chord of the 7th upon the Tonic of the Harmonic minor scale is practically useless, owing to its very awkward resolution, *e.g.*—

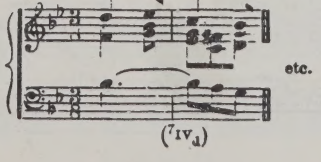


*** As will be seen later, the major 6th and minor 7th of the Melodic minor scale are frequently used in the construction of Secondary 7ths with excellent effect.

---

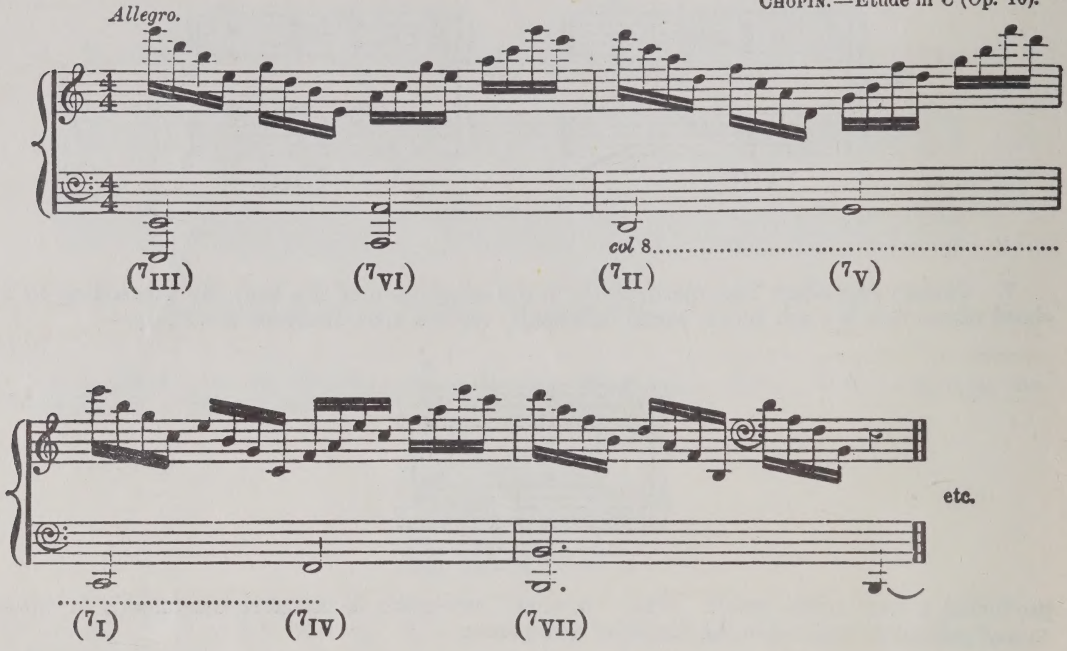
* Save occasionally when the Secondary 7th is in its 3rd inversion:—

BACH.—Christmas Oratorio.



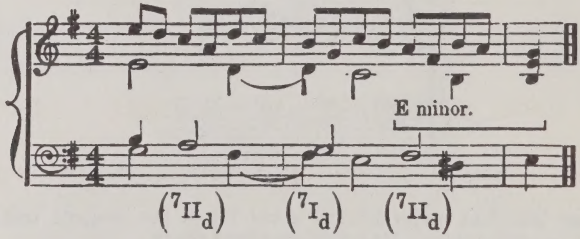
9. Sequences of Secondary 7ths, especially in the major key, are often to be found. One such example has already been given (foot-note to Sec. 4); two others from different authors are now added, the first, from Chopin, shewing a Sequence of 7ths in root-position, dispersed in "arpeggio" figures:—

CHOPIN.—Etude in C (Op. 10).

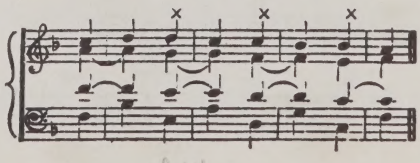


The second example, from Bach, affords an instance of the strong effect of the 3rd inversion:—

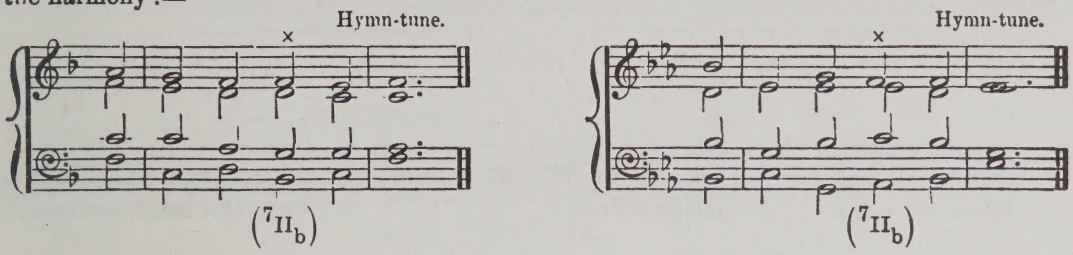
BACH.—Eight little Preludes and Fugues for the Organ.



N.B.—In a Sequence of chords of the 7th *in root-position throughout*, the 5th of each alternate chord will always have to be omitted, and the root doubled, if the passage is written in four-part harmony, *e.g.*—

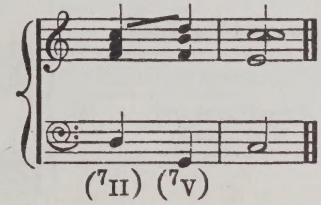


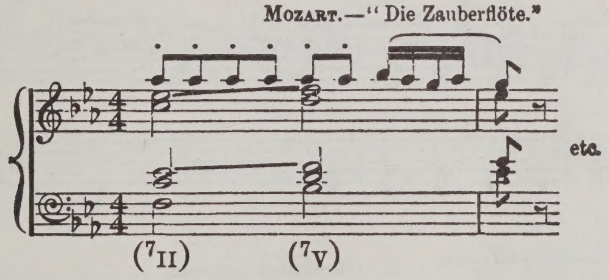
10. The addition of a 7th to the "pre-cadential" Supertonic triad (especially in its first inversion) is very usual, the mild form of dissonance providing a pleasant degree of impulse to the harmony :—



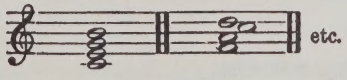
*** In this inversion the chord is often spoken of as the "chord of the Added sixth." (*See* page 188, foot-note.)

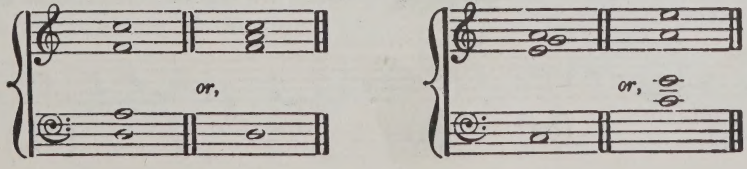
11. The chord of the 7th upon the Supertonic was the first in which the strict rule of "preparation" became relaxed; moreover, composers soon found out that, when it resolved upon the Dominant 7th harmony, its own 7th could *rise* a second quite satisfactorily, instead of falling :—



Mozart has a typical instance of this in one of his best-known overtures :—

EXERCISES UPON THE FIRST (OR "NORMAL") RESOLUTION OF SECONDARY CHORDS OF THE SEVENTH.

A. Play Secondary chords of the 7th on the several degrees of the major and minor scales, in various keys and in all positions. Play the chords first in "close position" (with one hand), thus :—



and afterwards in "extended position" (with both hands), thus :—

B. Play, in various major and minor keys, the following progressions. Give two versions of each, varying the top part, and arranging the examples in different times and rhythms :—

I ^7II_b ^7V I ; I ^7II_d V_b I ;

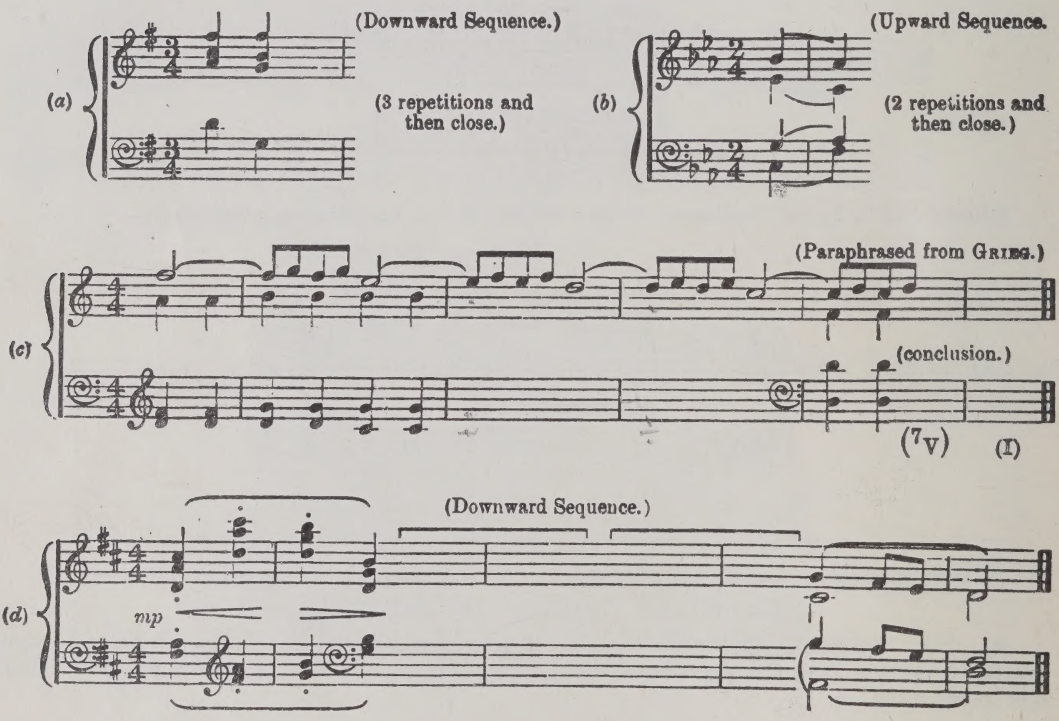
^7VI II V_b I ; V ^7III VI ^7II V VI ; I_b ^7IV_d VII_b I

(Major key only.) (Major key only.) (*See* Sec. 7, foot-note.)

IV ^7VII III ^7VI_c II V_b I ; V ^7I_b IV I

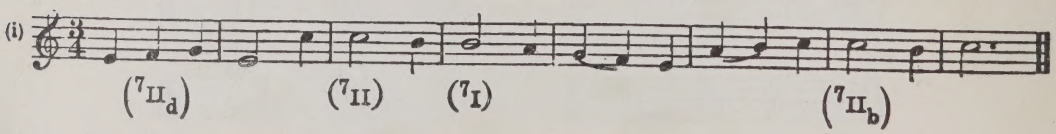
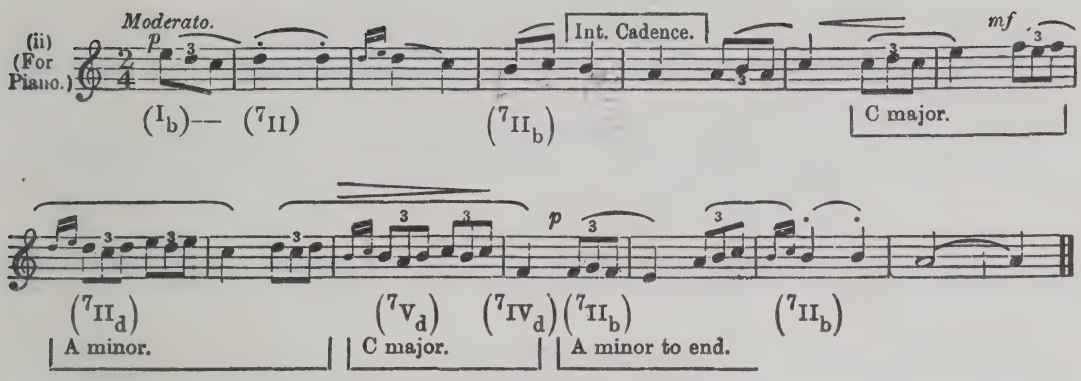
(Major key only.) (Major key only.)

C. Continue the following in Sequence, bringing each passage to a suitable conclusion :—

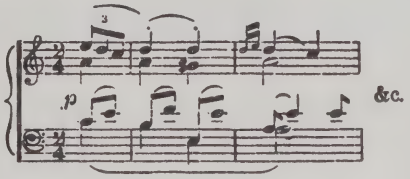


D. Harmonize the following melodies.

N.B.—In the first two exercises the special Secondary 7th required from time to time is indicated by a Roman numeral.

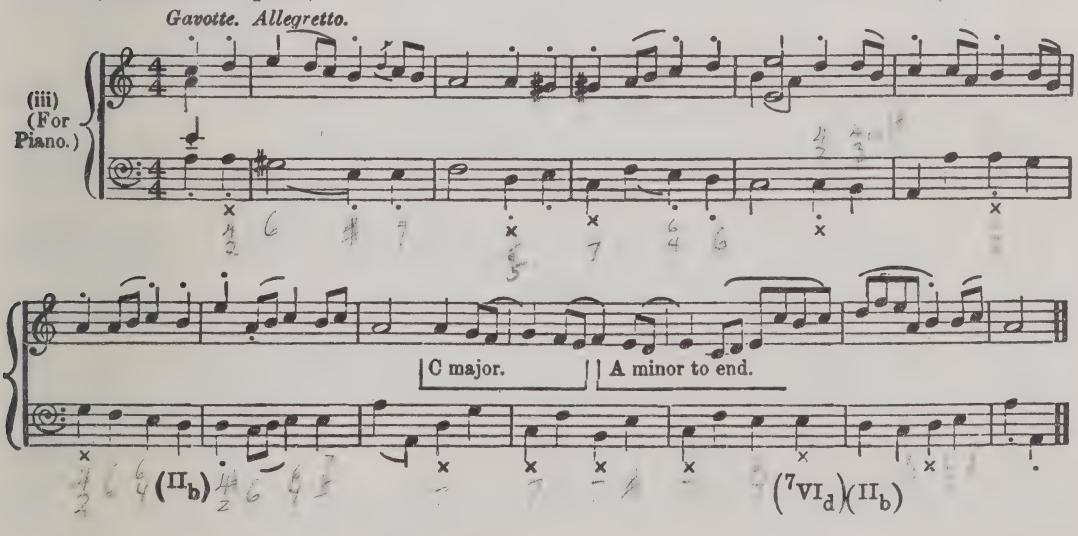


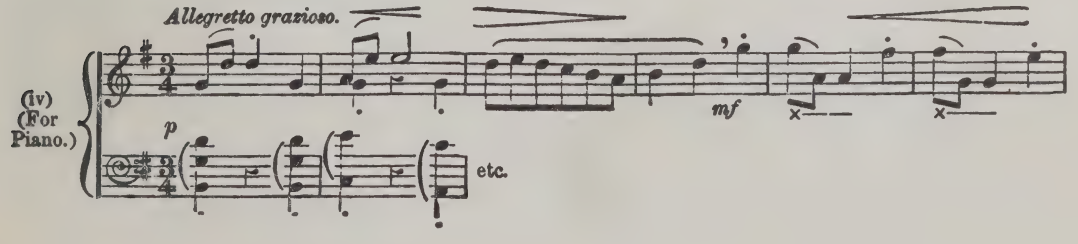
N.B.—Begin the above exercise thus:—

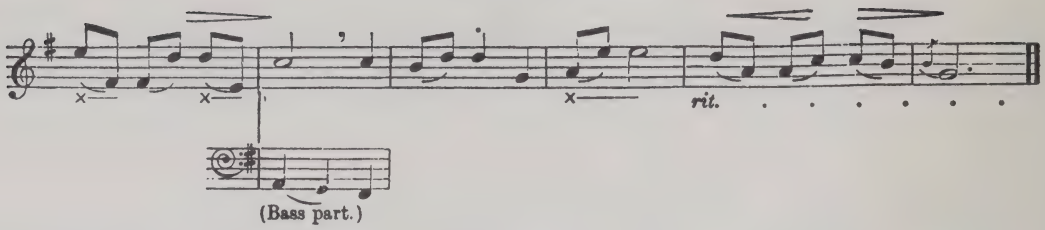


Note.—In the following exercises a cross denotes the use of a Secondary 7th.

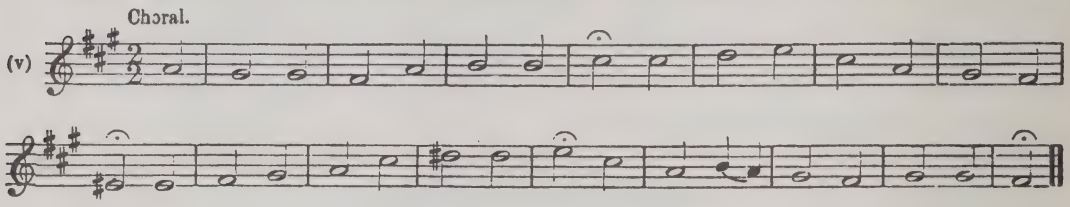
(Add two inner parts.)



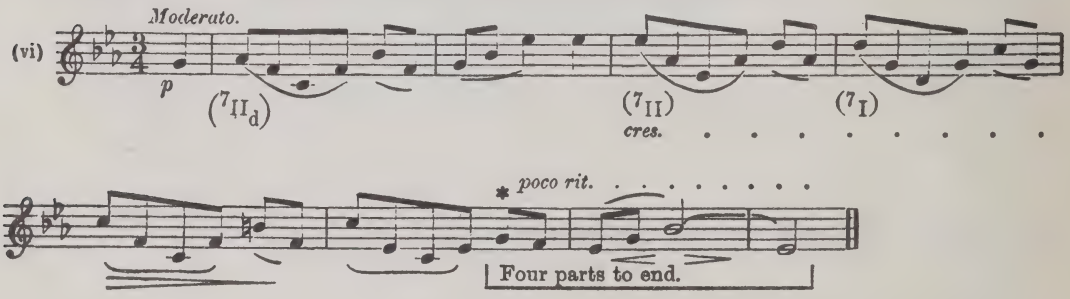


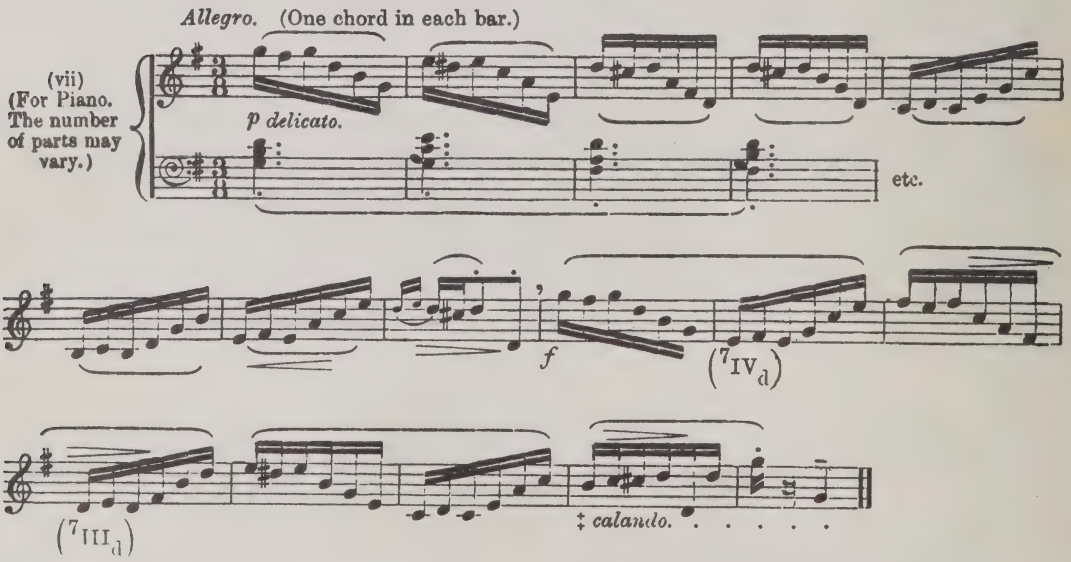


N.B.—In the remaining exercises, the introduction of a Secondary 7th is indicated only very occasionally. The student is, for the most part, left to his own judgment in the matter.



(In three parts: the harmony to run in minims and crotchets only.)



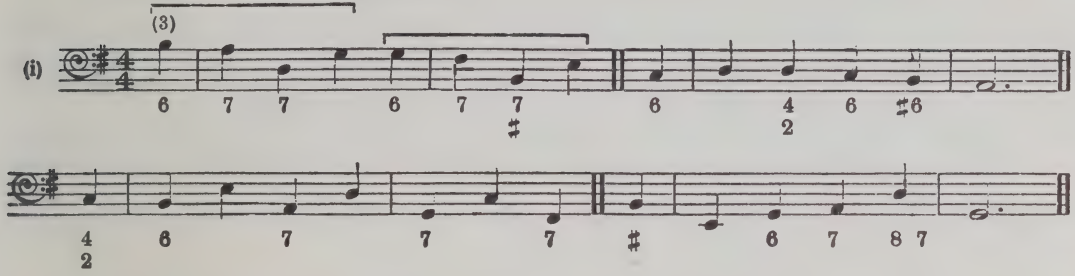


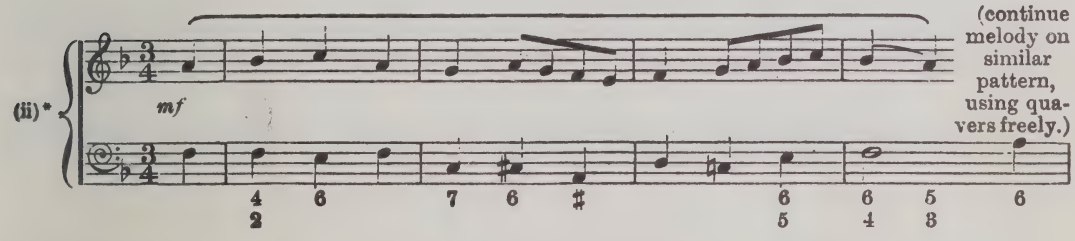
* Accented Passing-note.

‡ Two chords in this bar.

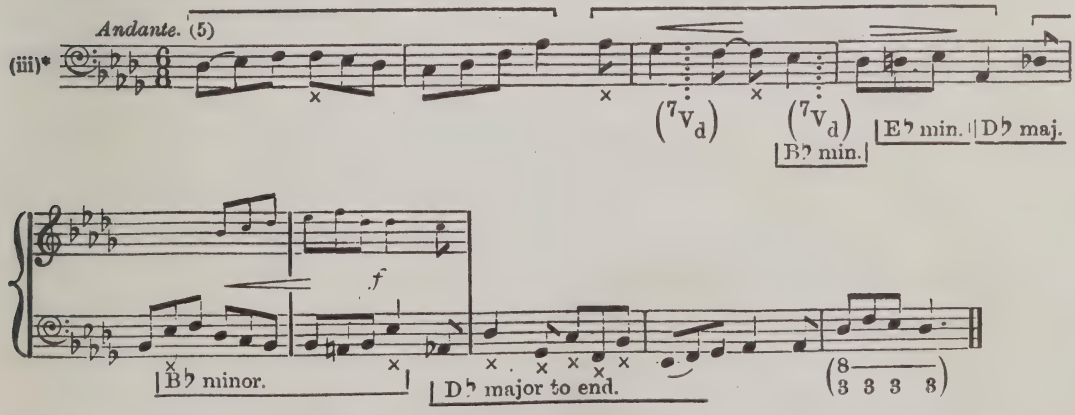
E. Harmonize the following Basses (figured and unfigured).

Hymn-tune. (Sequence.)





(A Secondary 7th, either in root-position or in one of its inversions, is indicated by each ×)



* These exercises are taken from the author's "350 Exercises." (Joseph Williams, Ltd.)

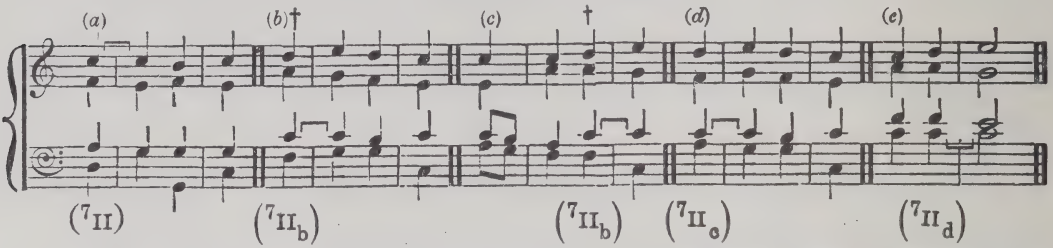
CHAPTER XXI.

SECONDARY CHORDS OF THE SEVENTH—(Cont^d.).

1. In Sec. 11 of the preceding chapter it was shewn that composers soon began to modify the original strict treatment of Secondary chords of the 7th. This modification was at first specially noticeable in the case of that upon the Supertonic, but it was not long before others followed suit, particularly in the direction of a greater freedom of resolution.

2. The chords of the 7th most frequently to be found resolving in other ways than the "normal" one described in Chapter XX are those upon the Supertonic, Subdominant and Submediant* (^{7}II, ^{7}IV and ^{7}VI), which often proceed either to Tonic or to Dominant harmony, as will be seen by the following examples:—

I. *Supertonic Secondary 7th resolving upon* Tonic *harmony.*

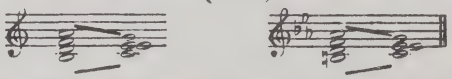


In this form of resolution, it will be seen, the 7th of the Supertonic usually *remains* to be the root of the Tonic chord.

N.B.—The above examples (and also those given below under heading II), are equally available in the minor form of the key, with the necessary modifications.

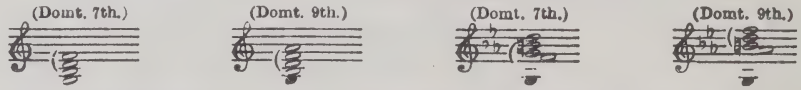
---

* The chord of the 7th upon the Leading-note (^{7}VII) often resolves upon Tonic harmony, thus:—

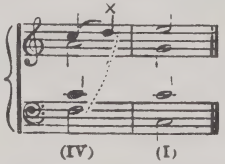


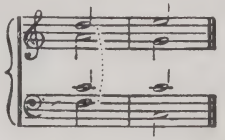
but it is then usually regarded as an inverted form of the Dominant major or minor 9th, and its consideration is for this reason deferred until Chapter XXIII.

It is worth while here to note that the combination of the 4th and 7th degrees of the scale in any chord almost invariably implies its derivation from the Dominant root, *e.g.*—

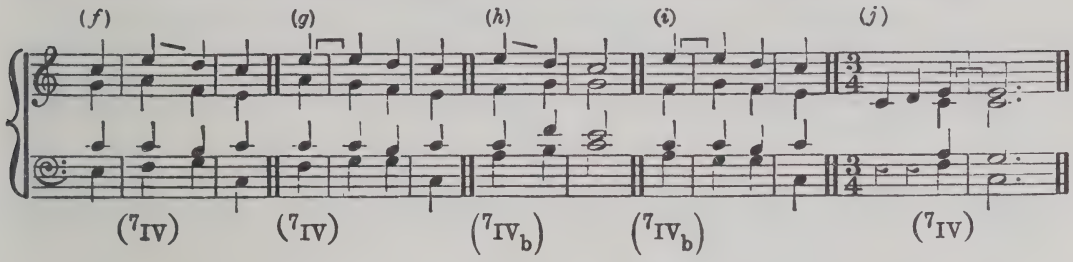


† As was stated in Chapter XX, Sec. 10, the first inversion of the Secondary 7th upon the Supertonic is frequently spoken of as the "Chord of the Added 6th." The expression in all probability owes its origin to the fact of the 6th from the bass-note having first been used merely as a passing-note "decorating" the Subdominant chord in a Plagal Cadence, thus:—

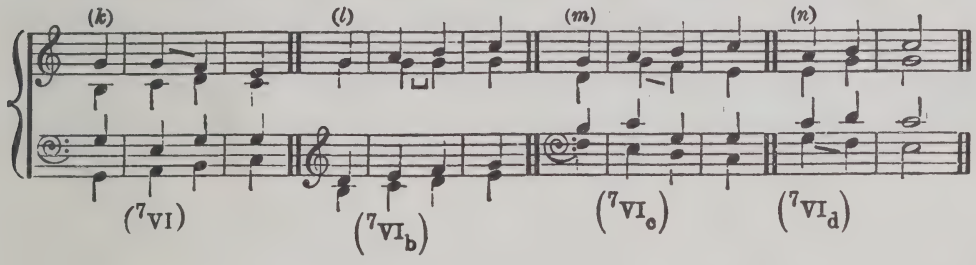


the striking of this note *against* the chord instead of after it, thus:—

being a later development. Compare this example with Exs. (*b*) and (*c*) above.

II. *Subdominant Secondary 7th resolving upon either* DOMINANT *or* TONIC *harmony.*



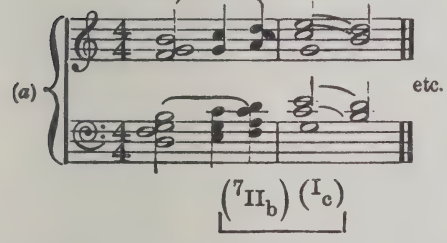
III. *Submediant Secondary 7th resolving upon* DOMINANT *harmony.**



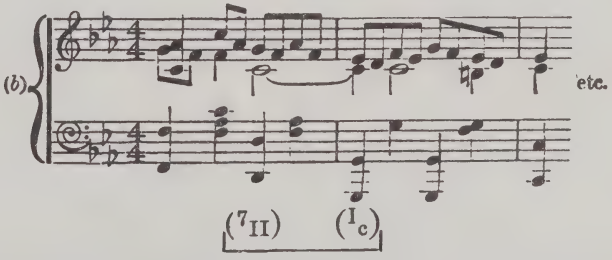
3. The extracts that follow are typical of the above-named resolutions of the Supertonic, Subdominant and Submediant 7ths:—

I. *Supertonic 7th.*

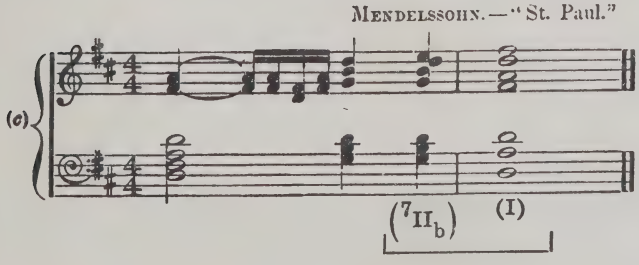
BEETHOVEN.—Sonata (Op. 53).

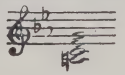


DVOŘÀK.—"Stabat Mater."



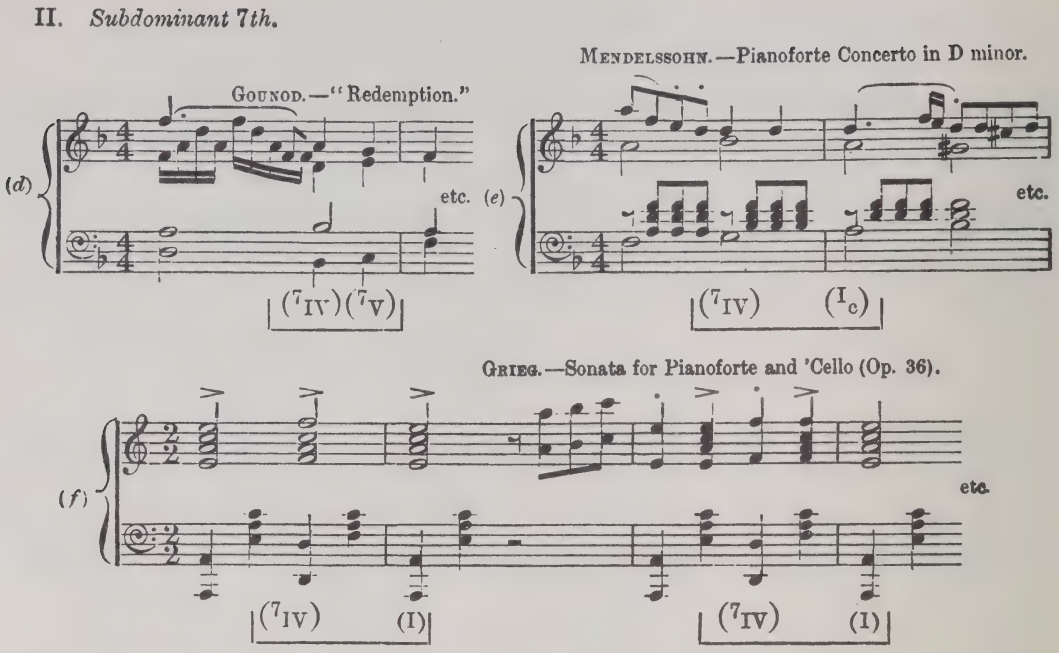
MENDELSSOHN.—"St. Paul."

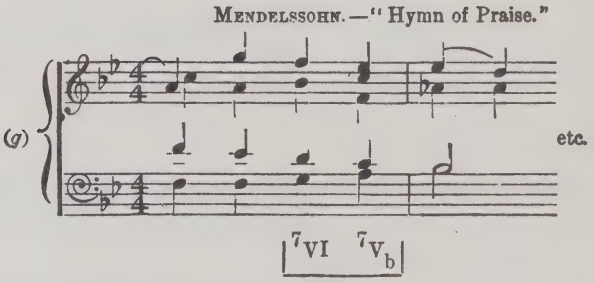


* When the Submediant 7th resolves thus in the minor key, it is usually taken upon the *major 6th* of the Melodic minor scale, thus:— 

See Sec. 4, Ex. (*c*), and Sec. 5, Ex. (*b*).)

II. *Subdominant 7th.*



III. *Submediant 7th.*

EXERCISES UPON SECONDARY 7TH (FREER RESOLUTION).

A. Play, in various major and minor keys, the following progressions, arranging the examples in different times and rhythms :—

^{7}II I_c ^{7}V I ; VI ^{7}II$_b$ I_c ^{7}V I ; I_b IV ^{7}II$_b$ I ;

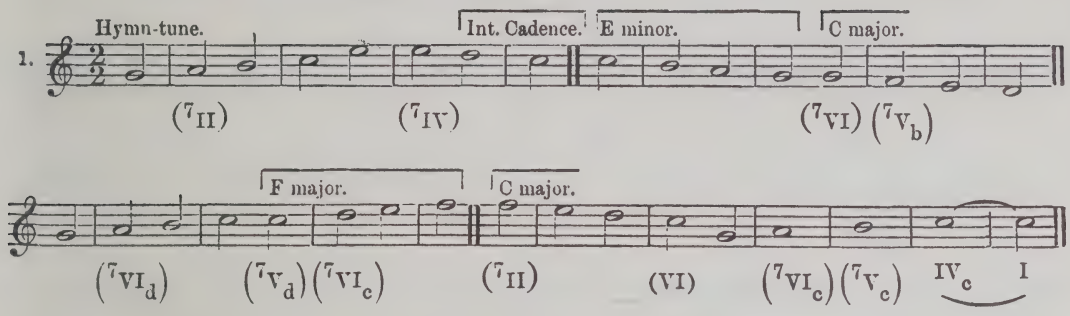
VI ^{7}IV ^{7}V I ; I_b ^{7}IV I_c ^{7}V I ;

(The following in major keys only.)

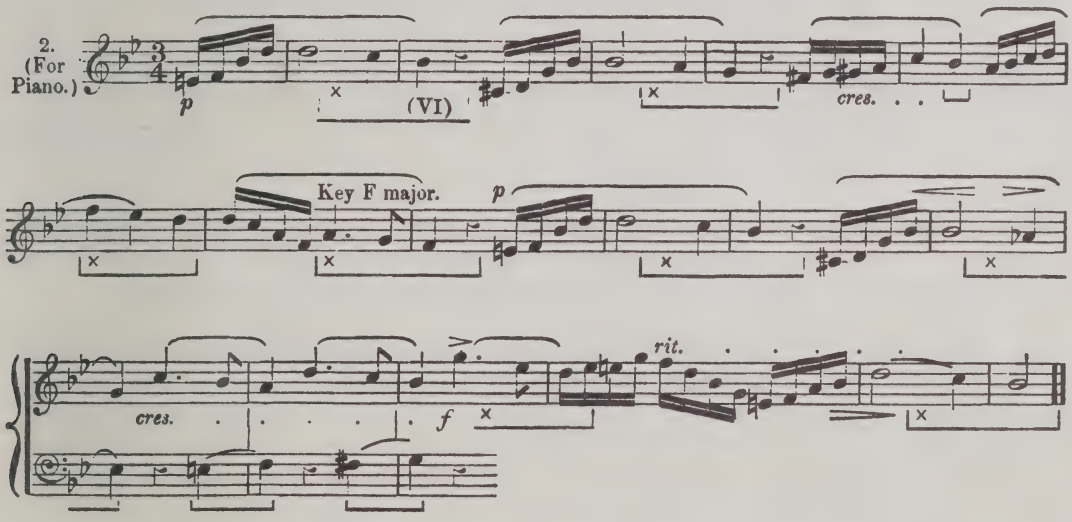
I_c ^{7}IV$_b$ ^{7}V$_b$ I ; V ^{7}VI ^{7}V$_b$ I ; ^{7}V$_d$ ^{7}VI$_c$ ^{7}V$_c$ I ;

V ^{7}VI$_d$ ^{7}V$_d$ I_b

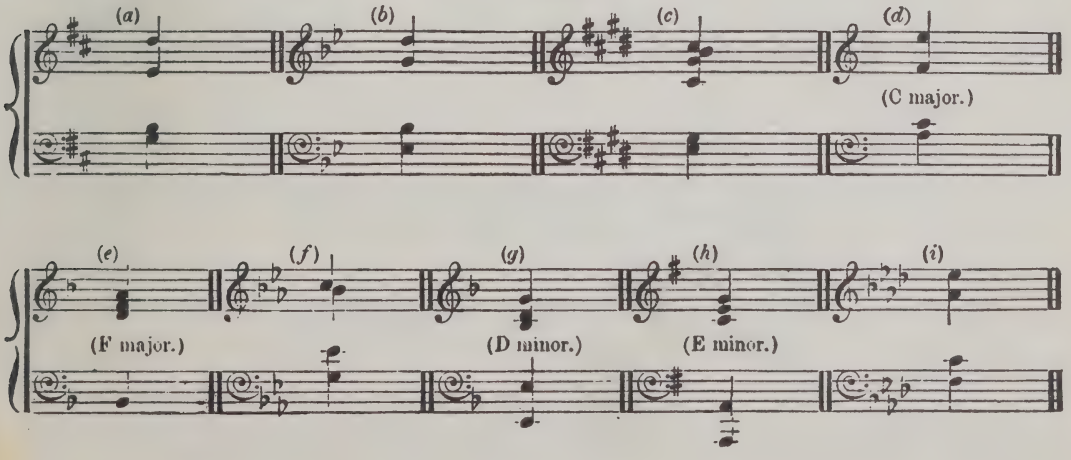
B. Harmonize the following melodies :—



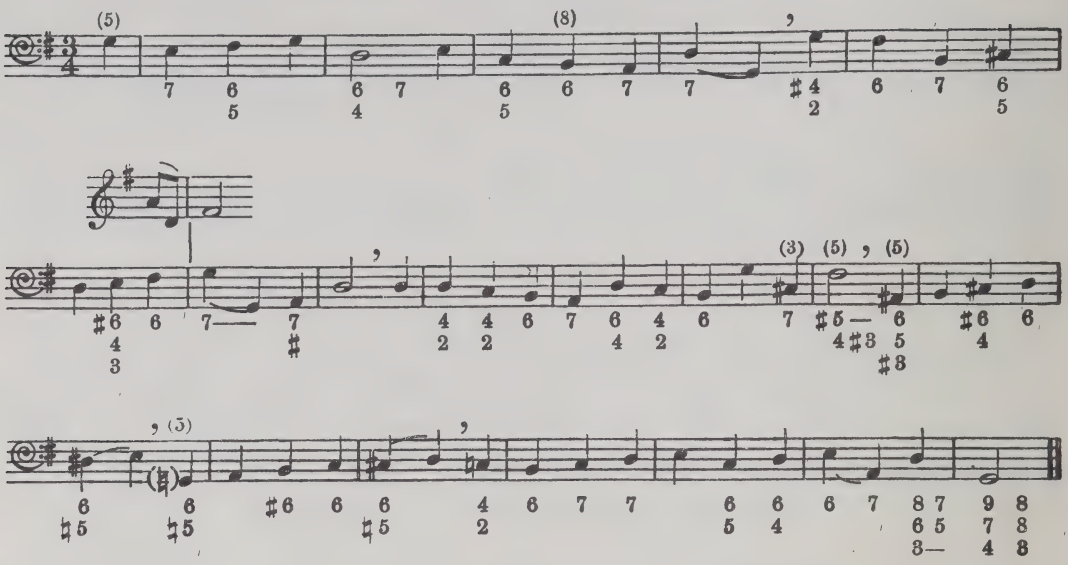
*** In the next exercise, harmonize only where indicated by the ⌐¬. A cross denotes the use of a Secondary 7th.



C. Play and write short rhythmical phrases, introducing the following chords, and exemplifying the resolutions dealt with in the present chapter :—



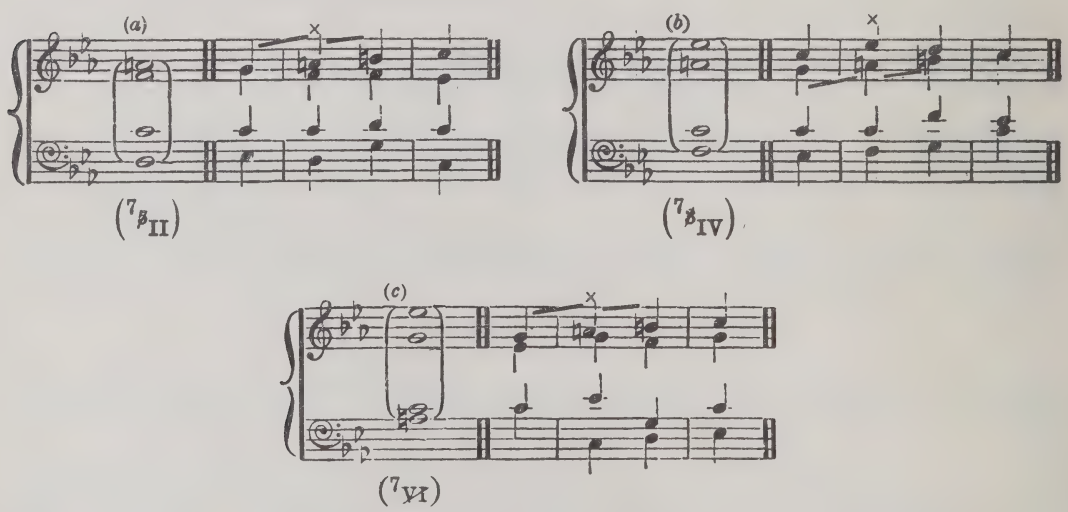
D. Harmonize the succeeding Figured Bass, in 4 vocal parts :—



SECONDARY 7THS INVOLVING USE OF MELODIC MINOR SCALE.

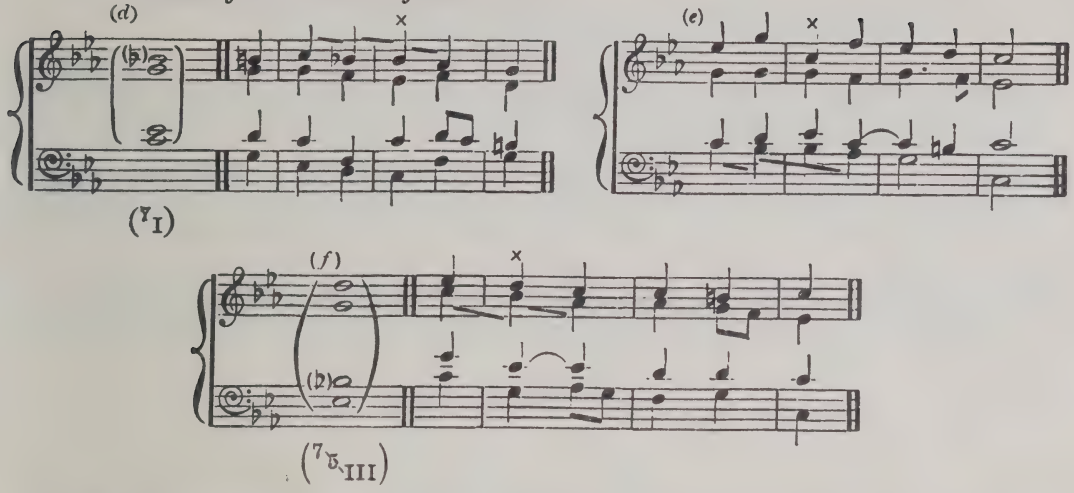
4. Reference to Chapter XVIII will remind the student that the variable upper tetrachord of the Melodic minor scale enables us largely to increase the range of triads in the minor key, the main condition in this connexion being that whenever the inflected note (*i.e.*, the major 6th or the minor 7th) occurs, it should usually form part of an ascending or descending scale-line between Dominant and Tonic. The same principle may be applied successfully in the case of Secondary 7ths, *e.g.*—

I. *Secondary 7ths containing Major 6th.**

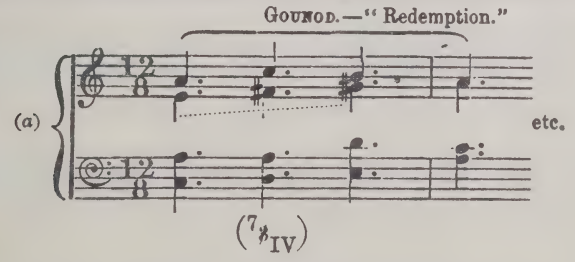
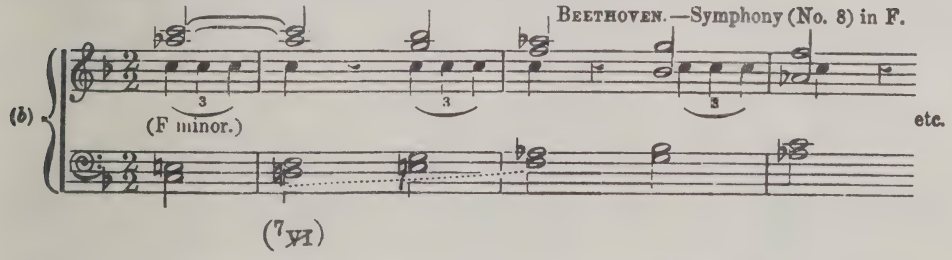


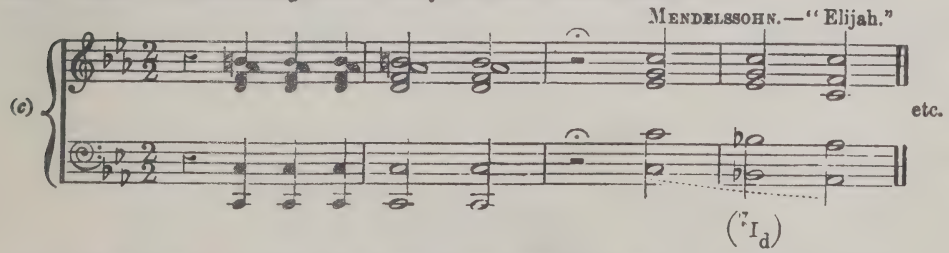
* These chords are, it will be found, more effective in certain positions than in others.

II. *Secondary 7ths containing Minor 7th.**



5. The extracts that are given below provide instances of the effective use of some of the above chords :—

I. *Subdominant 7th containing major 6th of Melodic minor scale :—*

II. *Secondary 7th upon major 6th of Melodic minor scale :—*

III. *Tonic 7th containing minor 7th of Melodic minor scale :—*



N.B.—**Exs.** (*b*) and (*c*) provide instances of Secondary 7ths used as "Passing" chords.

* These chords are, it will be found, more effective in certain positions than in others.

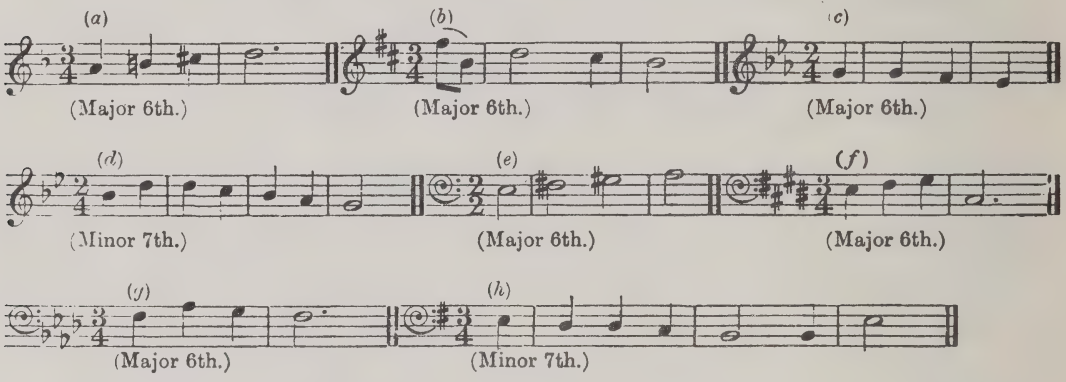
EXERCISES UPON SECONDARY 7THS INVOLVING USE OF MELODIC MINOR SCALE.

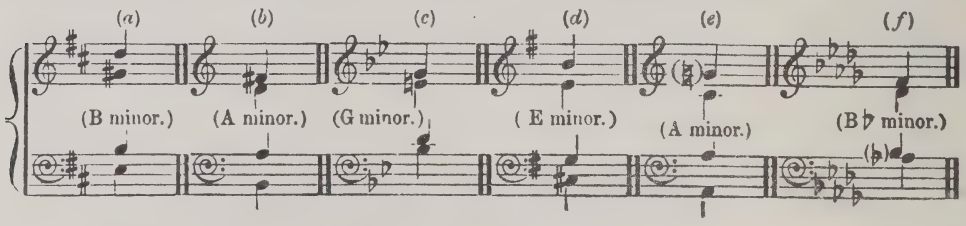
E. Play, in various minor keys, the following progressions (in different times and rhythms.) *N.B.*—Take special care that the note of the Melodic minor scale moves in every case by step (as indicated in Chapter XVIII, Sec. 2).

I_b $^{7}_{\sharp}II$ ^{7}V I ; V_b $^{7}_{\sharp}VI_b$ $^{7}V_c$ I_b ; I $^{8}V_b$ $^{7}I_d$ IV_b ^{7}V I ;

I_b $^{7}_{\sharp}IV_d$ $^{7}V_c$ I ; $^{7}V_d$ $^{7}_{\sharp}VI_c$ $^{7}V_c$ I ; I $^{7}_{\sharp}III_b$ VI ^{7}II ^{7}V I ;

V $^{7}_{\sharp}VI$ $^{7}V_b$ I ; I_b $^{7}_{\sharp}I$ IV V I

F. Harmonize the following fragments of melody and bass. Introduce a Secondary 7th including a note of the Melodic minor scale in each example :—

G. Play and write short rhythmical phrases introducing the following chords :—



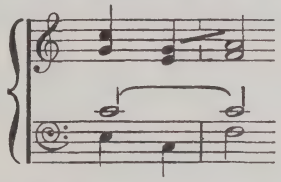
CHAPTER XXII.

CHROMATICALLY-ALTERED CHORDS.

1. The principle of the "chromatic alteration" of one or more of the notes of certain diatonic chords is the logical outcome of the use of chromatic passing-notes and Appoggiaturas, and it has proved to be the means whereby composers have, in the course of time, been able largely to increase the possibilities of harmonic colour.

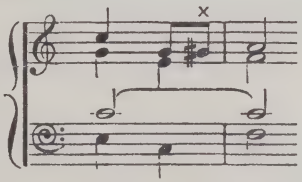
2. Like so many other notable harmonic effects, the chromatically-altered chord has resulted from the substitution of an *unessential* note for the harmony-note it was intended in the first place to decorate.* For example, if such a progression as the following were to be taken :—

(*a*)



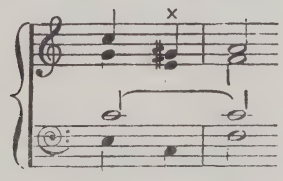
it would, of course, be possible to "decorate" the treble part by means of a chromatic passing-note between the G and the A, thus :—

(*b*)



From this it would be a natural step to *substitute* the chromatic note, G♯, for the original diatonic one :—

(*c*)



*** It will perhaps be noticed that the "colour" imparted by the use of the chromatic note is obtained in example (*c*) without the somewhat weak and sentimental effect of the chromatic semitone in passing from G and G♯ in example (*b*). The result of the chromatic alteration—which, be it observed, *causes no change of key*—is to form a triad with a sharpened (or raised) 5th upon the Tonic of the scale.

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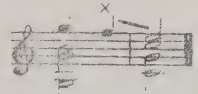
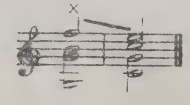
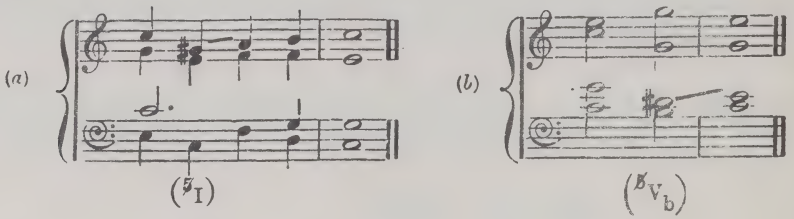
* The simplest example of this is to be found in the chord of the Dominant 7th, where the 7th itself was undoubtedly first treated as a mere passing-note, thus :—

afterwards being taken (*circa* A.D. 1600) as *part of the chord*, in the manner familiar to everyone to-day :—



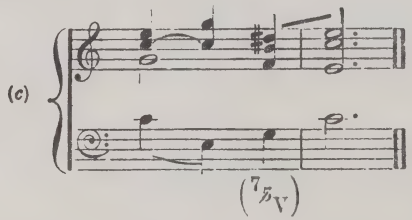
(*See* also Chapter XXI, Sec. 2 (foot-note), on the "Added sixth.")

3. Chromatically-altered chords are far more often met with in the major form of a key than in the minor form, and it should be observed that the original diatonic note may not only be chromatically raised (as in Sec. 2), but *lowered* semitonically in a similar manner.* The following are the most commonly used Chromatic alterations :—

I. Tonic or Dominant triad with *raised* 5th, forming an augmented triad in each case, *e.g.*—



II. Dominant 7th with *raised* 5th, *e.g.*—



N.B.—These are available in the major key only; the chromatically-raised note, forming a dissonance in each case, resolves by semitone *upwards*. It causes no False Relation by occurring in a different part from that in which the original diatonic note appears. (*See* ex. (*a*).) The raised 5th should always be placed *above* the 7th in the chord of the Dominant 7th.

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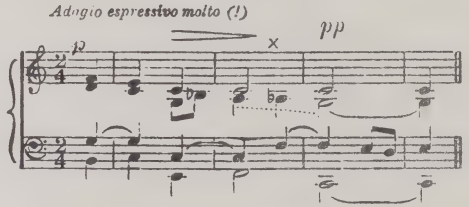
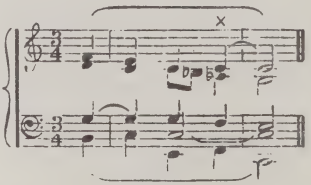
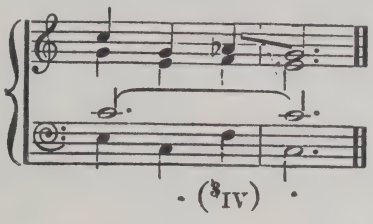
* A familiar instance of this is the "dying fall" so often affected by certain church-organists at special moments in the course of the service. The reader will probably recognize an old friend in the following progression :—

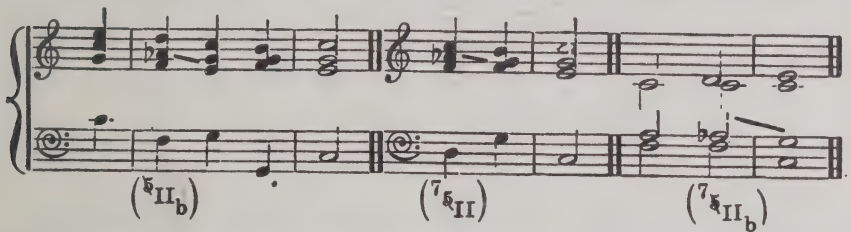


where, between the 3rd of the Subdominant chord and the 5th of the succeeding Tonic harmony, a chromatic passing-note, A♭, is inserted. As in the example in Sec. 2, the somewhat mawkish effect of the semitonic movement from A to A♭ and G could be removed by the *substitution* of the chromatic note for the original diatonic one, thus :—

a new colouring being given to the key of C major by the use of the chromatic note A♭ instead of the usual diatonic A♮.

III Subdominant triad of major key with *lowered* 3rd, *e.g.*—

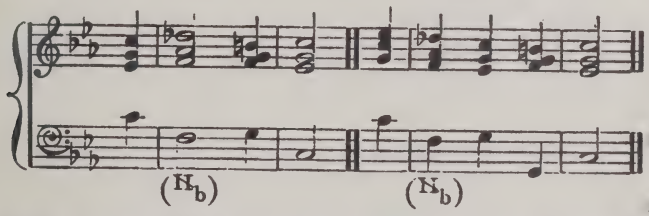


IV. Supertonic triad * (or Secondary 7th) of major key with *lowered* 5th, *e.g.*:—



N.B.—The lowered note generally falls a semitone, but *not invariably*. The chromatically-altered harmonies of IV and II (identical with the triads upon the corresponding degrees of the Tonic minor key) may usually be employed under the same conditions as the original diatonic chords.

V. Supertonic triad of *minor* key, with *lowered* root, *e.g.*—

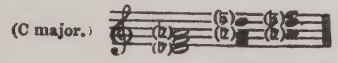


N.B.—This chord, through being a chromatically-altered form of Supertonic harmony, is most frequently followed by either a Dominant or an inverted Tonic chord, and often precedes a Cadence (as shewn above). It is, in the majority of instances, taken in the first inversion, when it is known as the chord of the "Neapolitan Sixth." † Although a major chord, the bass-note of this first inversion can be doubled with good effect.

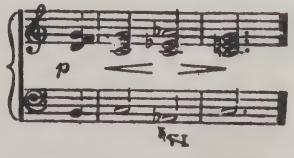
---

* This chord becoming, when "altered," a Diminished triad, is of course taken in the first inversion only.

† It is possible to use this chord in the *major* key also, but this involves the chromatic alteration of *two* notes of the original diatonic harmony, viz., the root and the 5th, *e.g.*—

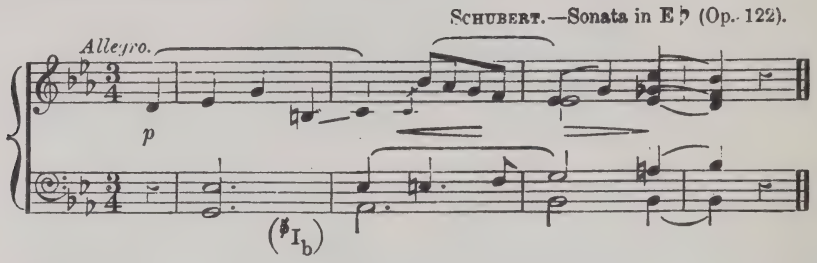


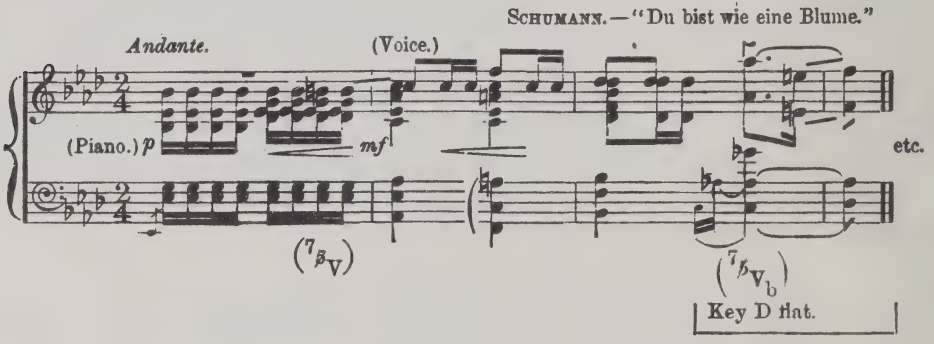
A similar double chromatic alteration of the Submediant triad of the major key, is sometimes found, *e.g.*—



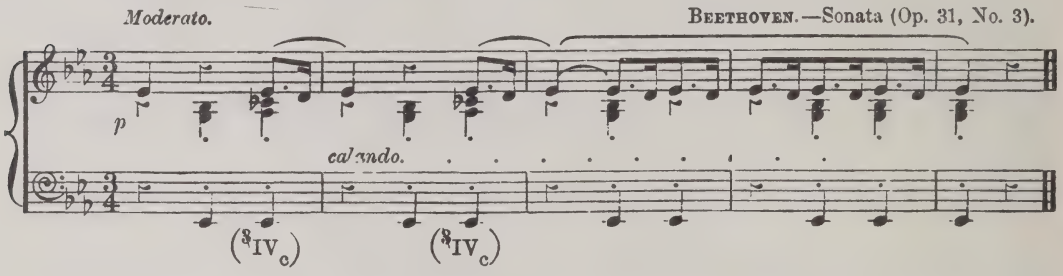
In this case also, both root and 5th are lowered a semitone, producing a chord identical with the Submediant triad of the Tonic minor key.

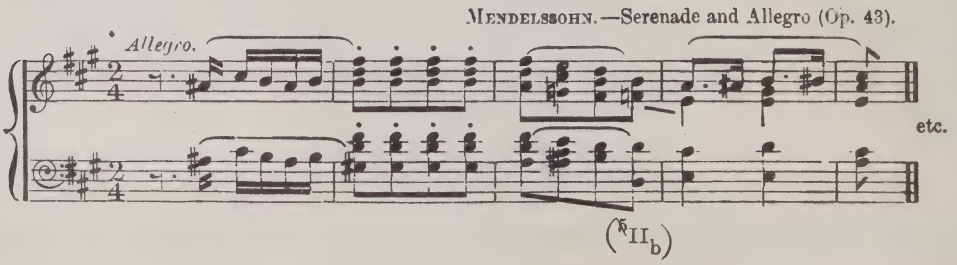
4. The extracts given below are typical of some of the chromatic alterations already spoken of :—

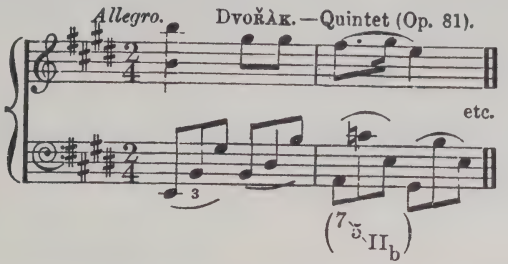
(*a*) *Tonic triad with raised 5th :—*

(*b*) *Dominant 7th with raised 5th :—*



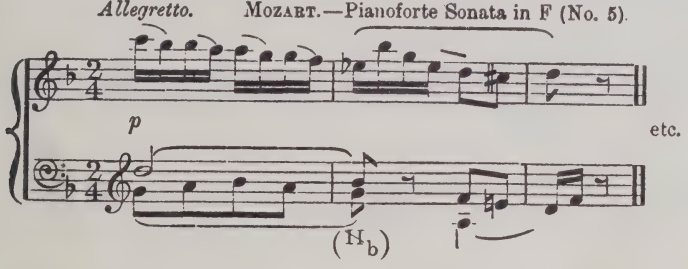
(*c*) *Subdominant triad with lowered 3rd :—*



(*d*) *Supertonic triad with lowered 5th :—*

(*e*) *Supertonic Secondary 7th with lowered 5th* :—



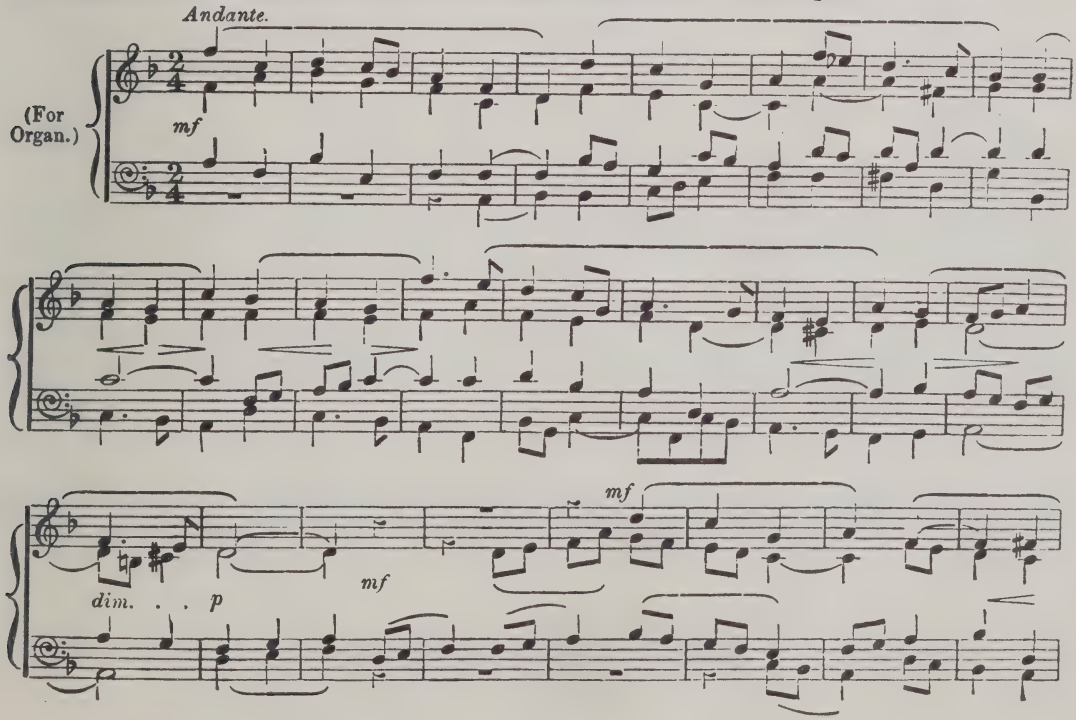
(*f*) *Supertonic triad of minor key, with lowered root (Neapolitan Sixth)* :—

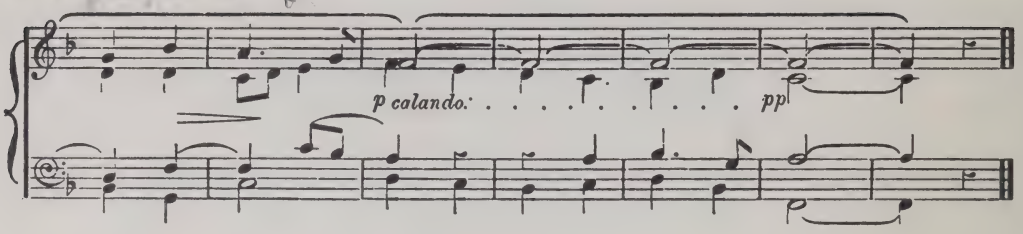


5. Further examples of chromatically-altered chords will be found in succeeding chapters.

EXERCISES ON CHROMATICALLY-ALTERED CHORDS.

A. Alter chromatically any of the chords in the following passage that you deem suitable, according to the principles set forth in the foregoing sections of this chapter.





B. Play, and write from memory, the following progressions in the usual way:—

(*a*) Major keys only.

I I_b $^{\flat}V$ I ; I $^{\flat}IV_b$ I_c ^{7}V I ; I $^{\flat}II_b$ ^{7}V I ; $^{7\flat}V_b$ I $^{\flat}I_b$ IV IV_b I ;

I I_b $^{7\flat}II$ ^{7}V I ; I $^{7\flat}II_b$ I_c ^{7}V I ; I_b IV $^{7\flat}II_b$ I .

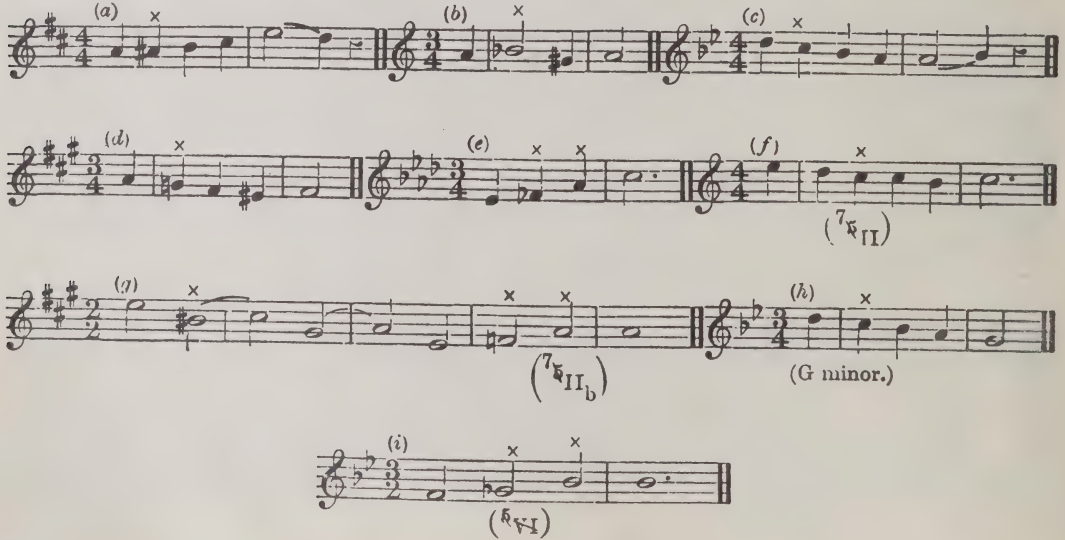
(*b*) Minor keys only.

I II_b ^{7}V I ; I_b II_b I_c ^{7}V I ; IV II I_c ^{7}V I .

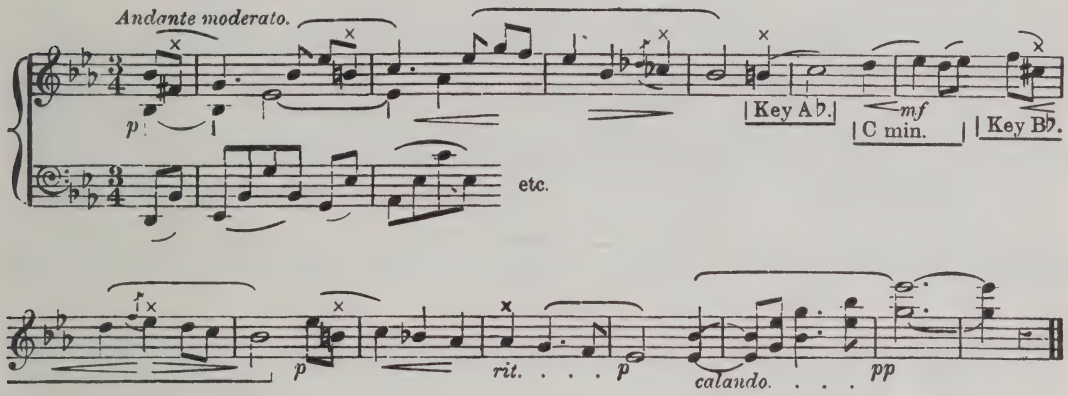
(*c*) Major keys only.

I $^{\flat}\mathrm{VI}$ $^{\flat}IV$ I ; I $^{\flat}\mathrm{II}_b$ ^{7}V I ; I_b $^{\flat}\mathrm{II}_b$ I_c ^{7}V I .

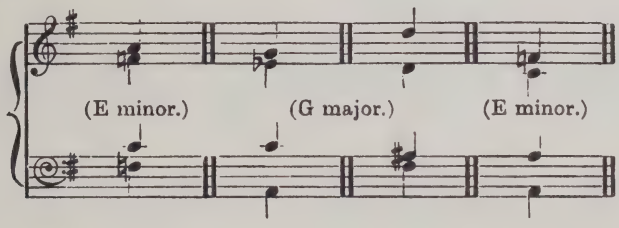
C. Harmonize the following fragments of melody, introducing a chromatically-altered chord at the × :—



D. Harmonize the following melody for the Pianoforte, maintaining the form of accompaniment indicated in the opening bars. The × denotes a point at which a chromatically-altered chord should be used.



E. Write (in four parts, for voices) eight bars of music introducing the following chords, in the order given. Begin and end in E minor.



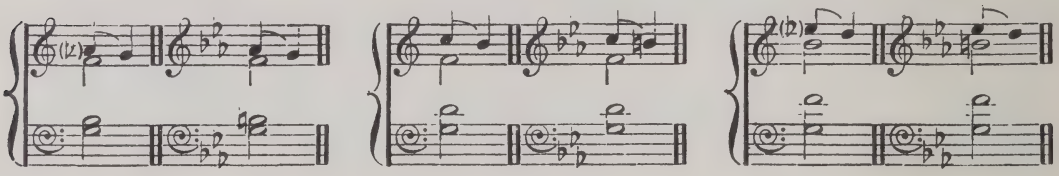
CHAPTER XXIII.

CHORDS OF THE NINTH.

I.—THE CHORD OF THE DOMINANT 9TH.

1. THE exercises in Chapter XVII upon the use of the Appoggiatura have already shewn that accented passing-notes above the root, 3rd or 5th of the Dominant 7th chord produce combinations which are frequently described as Dominant 9ths, 11ths and 13ths, *e.g.*—

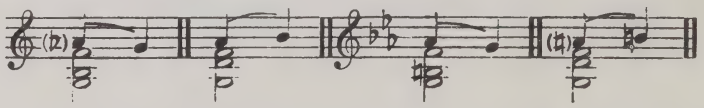
(Dominant 9ths.) (Dominant 11ths.) (Dominant 13ths.)



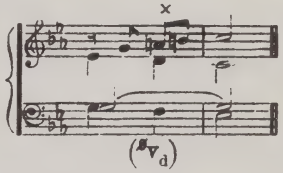
2. It was also seen that the unessential note above the root of the Dominant 7th chord (forming the 9th from the Dominant root) might resolve in either of the following ways :—

(i) Downwards to the root of the chord ;

(ii) Upwards to the 3rd of the chord :—



*** The ♭ in brackets in the above examples indicates that the 9th in the major form of a key may be either a major or minor 9th, the latter being a "chromatically altered" note ; in the minor form of a key, the 9th is always *minor*, save when it rises by step to the 3rd of its own chord—that is, along the line of the Melodic minor scale :—

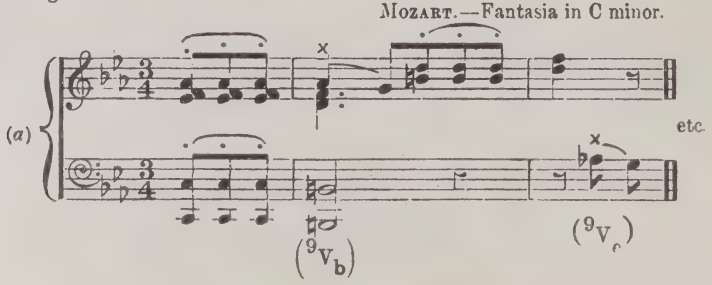
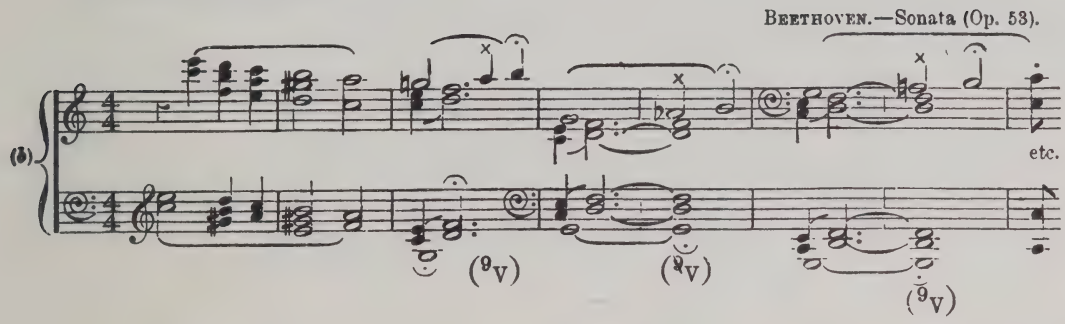
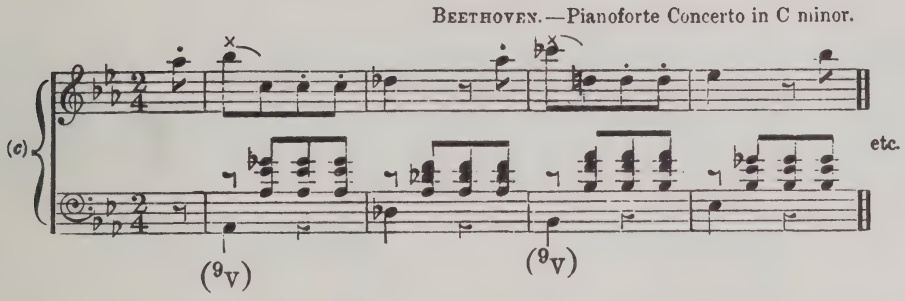


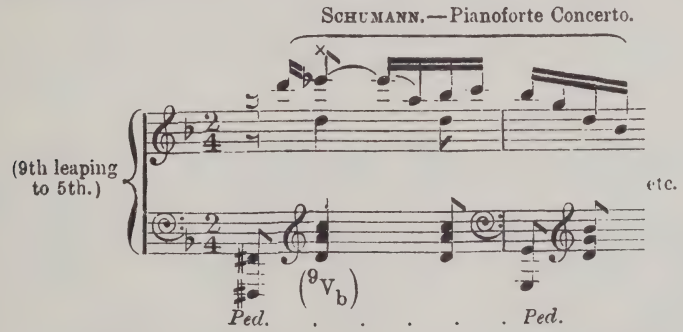
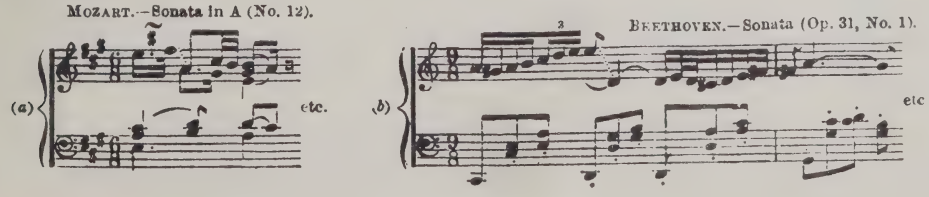
(*See* Chapter XVII, Sec. 7.)

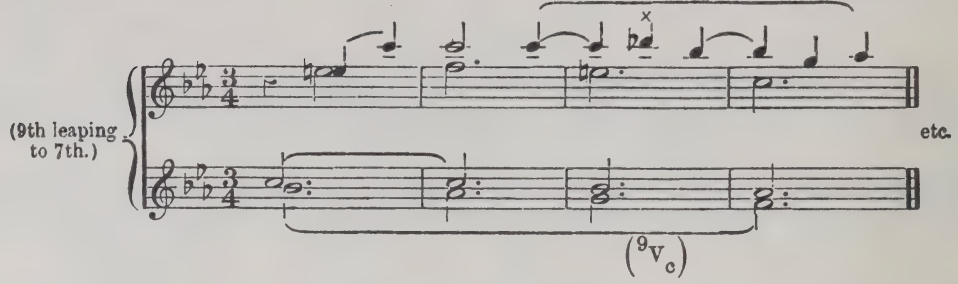
The A♮ here clearly produces a smoother melodic progression than would result from A♭ proceeding upwards to B♮ and thereby causing the somewhat unvocal interval of an augmented 2nd. This interval might, however, in certain cases have a distinct beauty of its own, particularly in instrumental music, (*see* example from Beethoven in Sec. 3).

3. The "Appoggiatura" treatment of the 9th is illustrated by the following extracts :—

(i) Ninth resolving to root :—

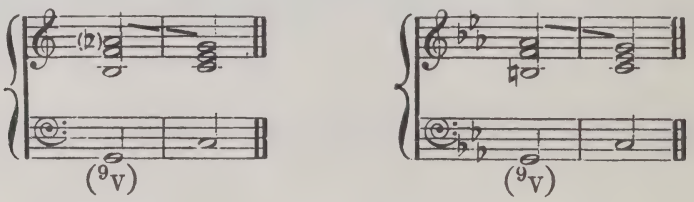
MOZART.—Fantasia in C minor.

(ii) Ninth resolving to 8rd :—

*** Ex. (*c*) shews the "Appoggiatura 9th" resolving by the *descent* of a 7th (minor or diminished), instead of by the ascent of a 2nd (major or augmented). This is often a very effective resolution.

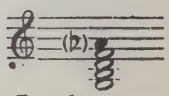
4. Occasionally, the "Appoggiatura 9th" resolves by leaping in arpeggio to the 5th or the 7th of the Dominant harmony : *

* It may be objected that, if the 9th leaps in this manner (or as in Ex. (*c*) in Sec. 3), it cannot be regarded as an "Appoggiatura"; but it must be remembered that unessential notes (either unaccented or accented) do sometimes resolve otherwise than by step, even in the music of comparatively early instrumental writers :—

BEETHOVEN.—Sonata Op. 10, No. 1.

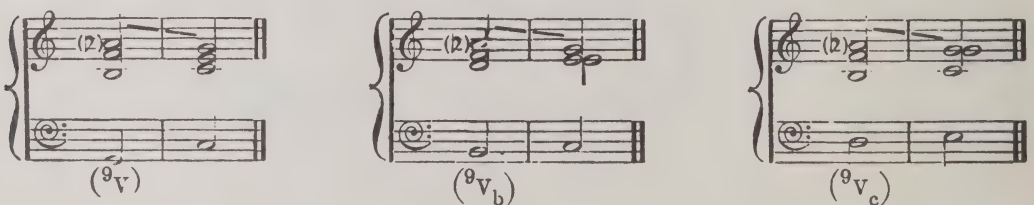


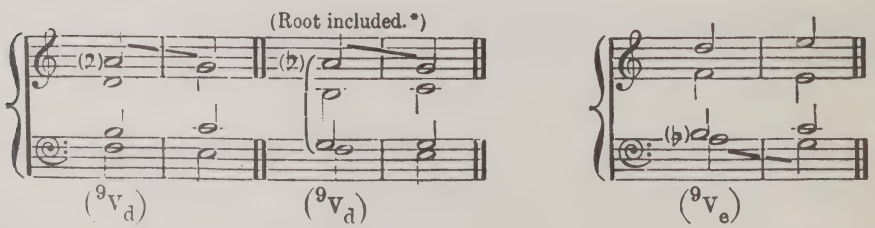
THE 9TH AS AN "ESSENTIAL" NOTE.

5. Instead of appearing as an Appoggiatura, the 9th frequently assumes the character of an "essential" note, and becomes an integral part of the Dominant harmony, resolving together with the rest of the chord upon a *new* harmony (usually the Tonic, to the 5th of which the 9th falls by step), *e.g.*—



6. It is obvious that, as the *complete* chord of the Dominant 9th  contains five notes, one of these must be omitted in four-part harmony. In the root-position this note is the 5th; in the inversions, the *root itself* (save occasionally in the 3rd inversion):—

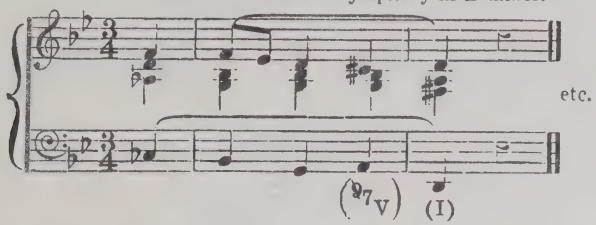




* When the root is included, as here, the 9th must be at the distance of a *ninth* (not a *second*) from it.

N.B.—The *major* 9th usually (but not *invariably—see* example from Beethoven in Sec. 8) sounds better *above* the 3rd of the chord; as a consequence, the 4th inversion of the Dominant major 9th is rarely met with. All the progressions given above are available in the minor form of the key, with the proviso that the 9th is always *minor*. César Franck has an effective instance of the Dominant minor 9th in root-position;—

CÉSAR FRANCK.—Symphony in D minor.

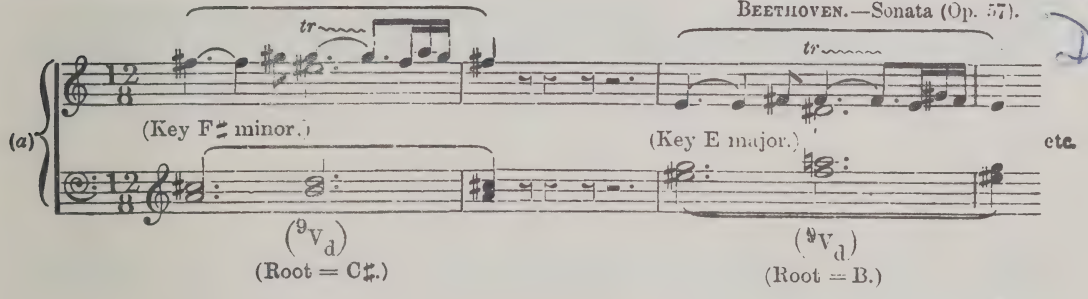


7. The inversions of the chord of the Dominant *minor* 9th (when the root is omitted) produce the harmony which is often conveniently described as the "chord of the Diminished Seventh":—

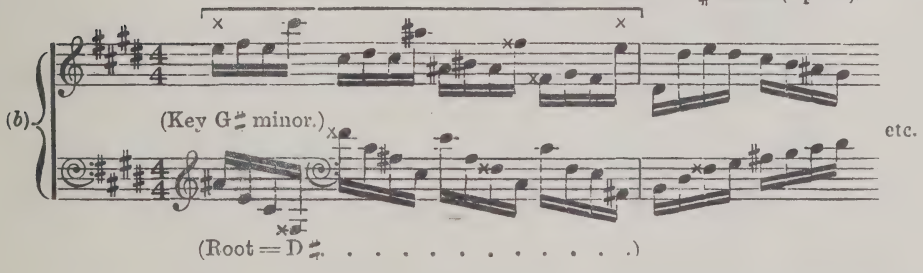
(Root G omitted. . . . . .)

Two well-known examples are given below:—

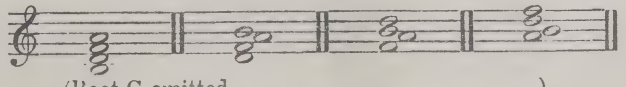
BEETHOVEN.—Sonata (Op. 57).



CHOPIN.—Etude in C♯ minor (Op. 10).

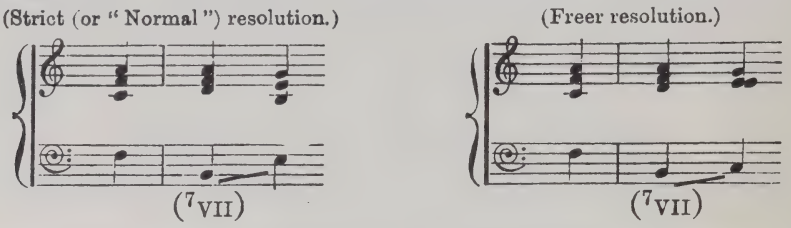


8. The inversions of the Dominant *major* 9th (with the root omitted) produce a chord identical with the Secondary 7th upon the Leading-note of the major key, and it is for that reason sometimes termed the "chord of the Leading 7th":—



(Root G omitted. . . . . .)

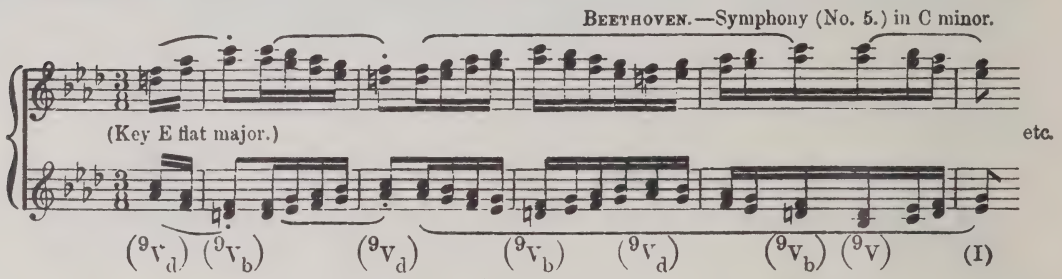
It is of course *possible* to regard it as a Secondary 7th with a freer resolution, *e.g.*—



but for all practical purposes it is simpler and clearer to think of the chord as derived from the Dominant root, that is, as (9Vb)

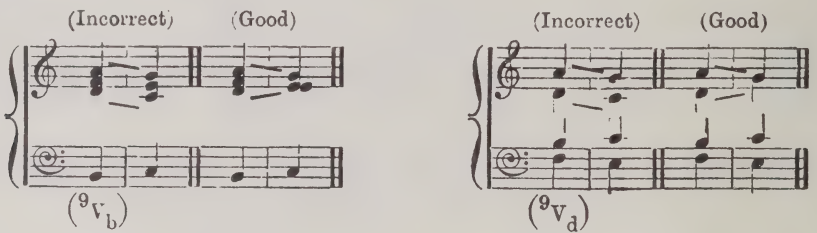
N.B.—It is of comparatively small importance how a chord is *named*, so long as its effect has been aurally recognized, and its treatment mastered.

A most effective instance of the use of the inversions of the Dominant major 9th (the "Leading 7th") is to be found in the slow movement of Beethoven's 5th Symphony :—

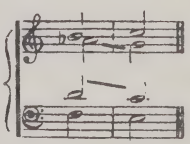


PART-WRITING.

9. In resolving the inversions of the chord of the Dominant *major* 9th upon the Tonic triad (or one of its inversions), care should be taken to avoid clumsy consecutive 5ths, by making the 5th and major 9th move in contrary motion to one another (if the 5th is placed below the 9th) :—

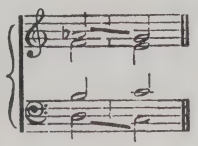


N.B.—Such 5ths are sometimes possible in the case of the *minor* 9th :—

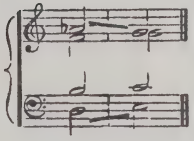


one of the 5ths being diminished, but even then their avoidance is usually to be recommended.

A progression such as the following (with the consecutive 5ths between the *bass* and another part) should not be tolerated :—

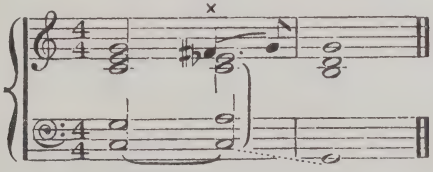


but should be modified thus :—



10. Ordinarily the 3rd and 7th in the chord of Dominant 9th move as in the case of the Dominant 7th chord, but a not uncommon treatment of the 7th in the inversions of the Dominant *minor* 9th (chord of Diminished 7th) is represented by the following, where the 7th *leaps* a 4th down to the root of the Tonic triad :—

MENDELSSOHN.—"Lauda Sion."



The 7th is then not infrequently doubled, as in the above example.

EXERCISES UPON THE DOMINANT 9TH.

A. Play and write examples of the following (in various major and minor keys) :—

(*a*) The Appoggiatura 9th resolving upon the root of the Dominant 7th chord ;

(*b*) The Appoggiatura 9th resolving upon the 3rd of the Dominant 7th chord ;

(Illustrate this by making the 9th sometimes rise a 2nd, and sometimes fall a 7th.)

(*c*) The 9th as an "essential" note of the Dominant harmony.

*** In every instance resolve the Dominant harmony upon that of the Tonic.

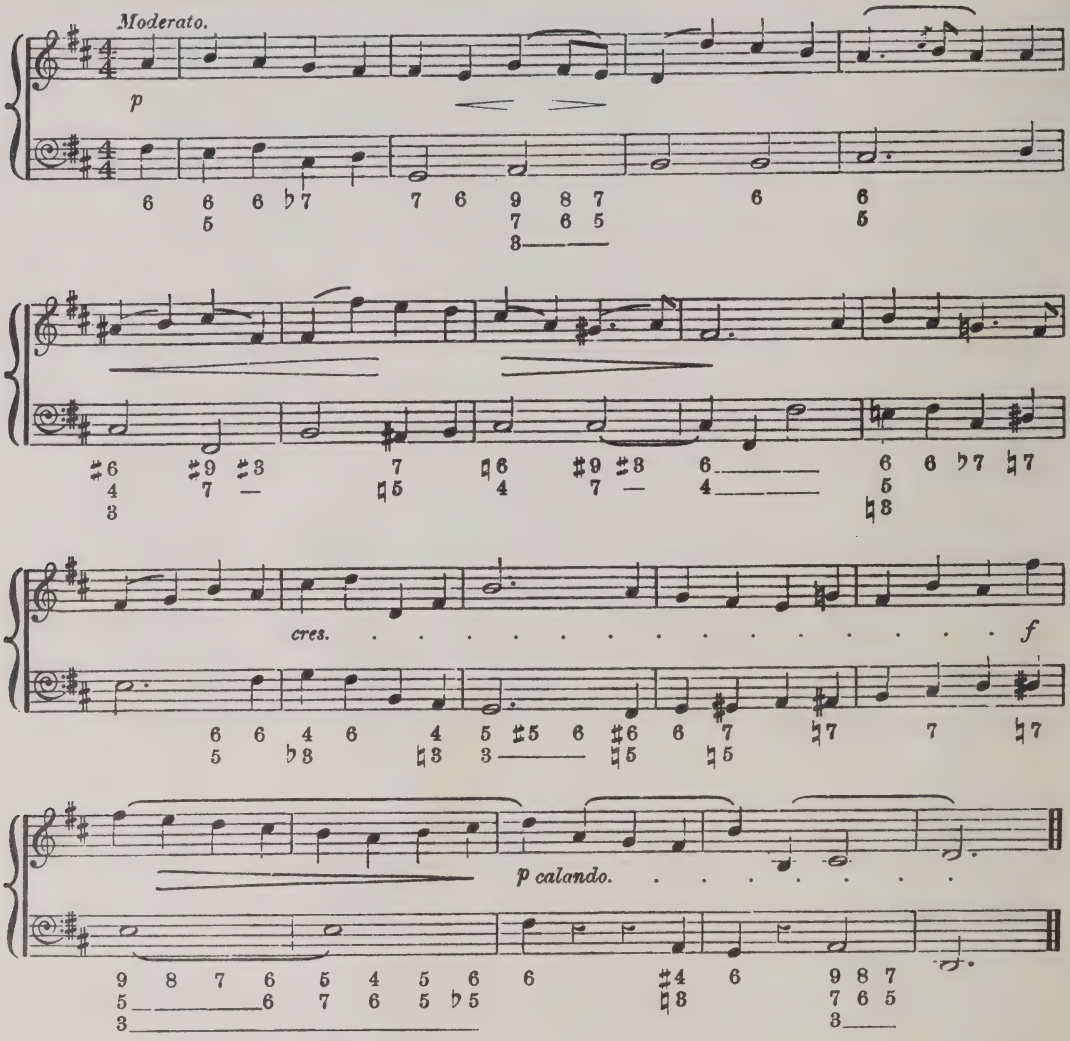
B. Play, and write from memory, the following progressions, in various major and minor keys. When working the examples in the major form of a key, the 9th should be sometimes major, and sometimes minor ; in the *minor* form of a key, it should always be minor.

$\overline{\text{I } {}^{9}\text{V } \text{I}}$; $\overline{\text{I } {}^{9}\text{V}_{\text{b}} \text{ I}}$; $\overline{\text{I}_{\text{b}} \text{ I } {}^{9}\text{V}_{\text{d}} \text{ I}_{\text{b}}}$; $\overline{\text{I IV } {}^{9}\text{V}_{\text{c}} \text{ I}_{\text{b}}}$ $\overline{{}^{9}\text{V}_{\text{e}} \text{ I}_{\text{c}} {}^{9}\text{V}_{\text{d}} \text{ I}_{\text{b}}}$

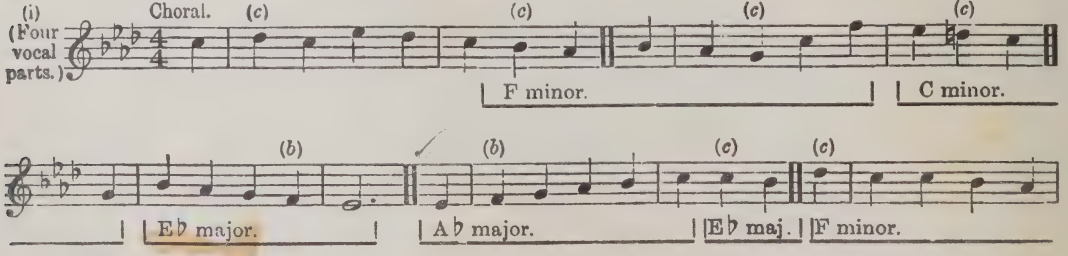
(Le careful of the part writing here.)

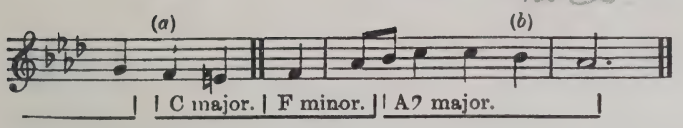
C. Add Alto and Tenor parts to the following, according to the figuring.

N.B.—Analyse the harmony throughout.

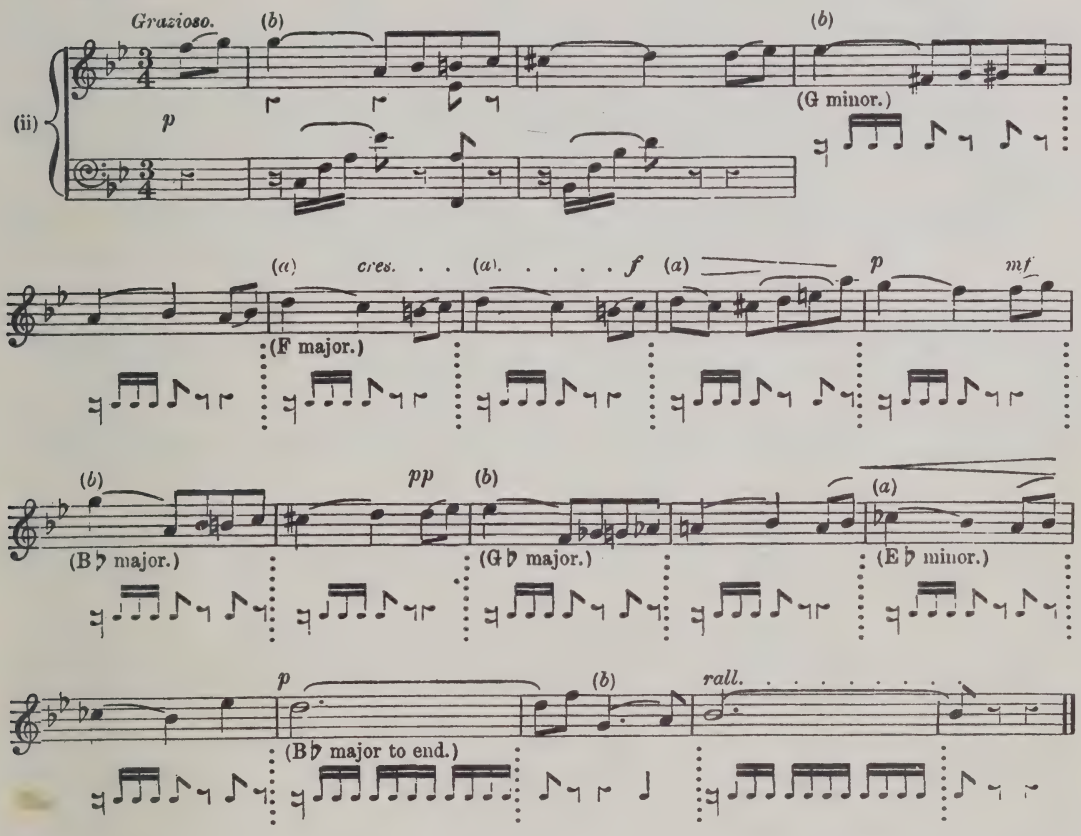


D. Harmonize the following melodies, introducing a chord of the 9th (direct or inverted) where indicated. An "Appoggiatura" 9th resolving on the root of the Dominant harmony is indicated by the letter (*a*); a similar "Appoggiatura" 9th resolving on the 3rd, by (*b*); while an "essential" 9th is implied by the letter (*c*). The student is left to decide whether a major 9th or a minor 9th is preferable on each occasion.

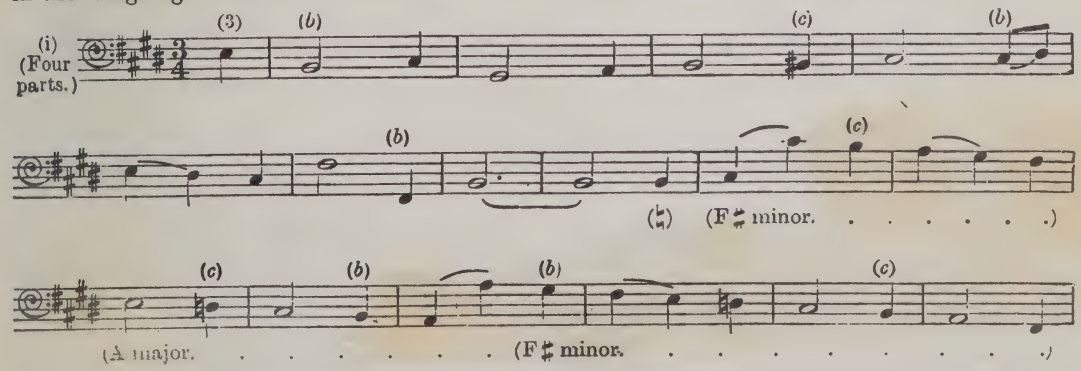




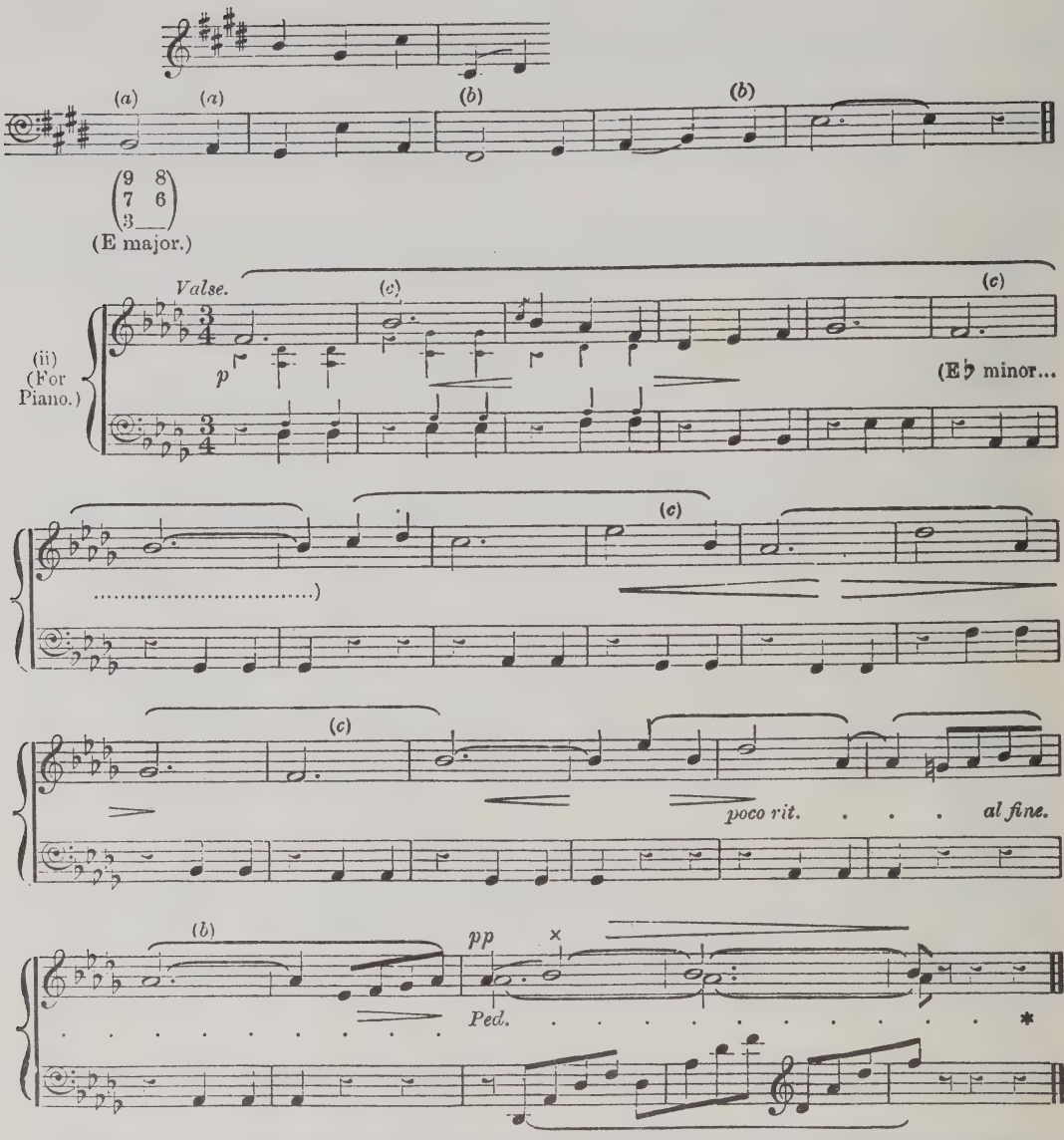
N.B.—Consider the following as written for the Pianoforte. Maintain an accompaniment similar to that suggested in the opening bars.* The *rhythm* of this is indicated throughout, underneath the melody itself:—



E. Harmonize the following Unfigured basses. The various forms of 9th are indicated as in the foregoing section:—

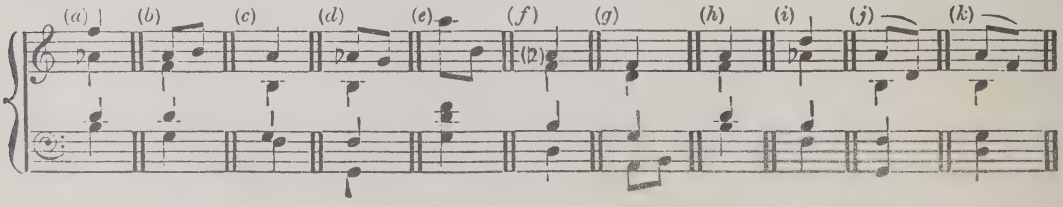


* See Appendix B.

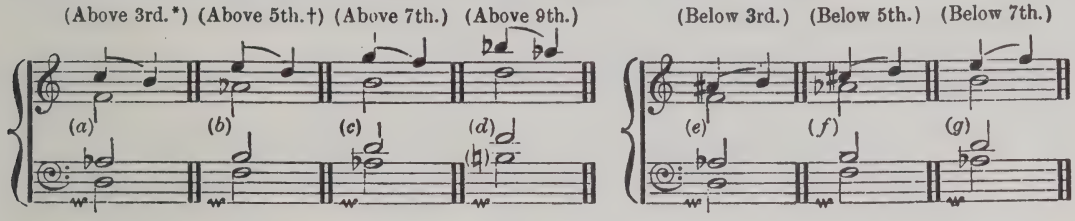
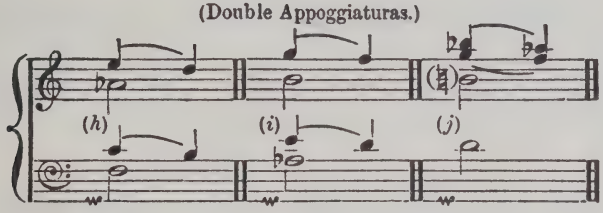


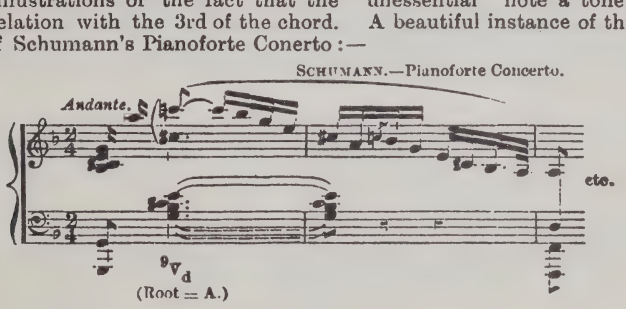
× The 6th added to the Tonic triad in a final cadence is a not unusual modern idiom, which, however, easily becomes a somewhat trying mannerism.

F. Play or write several phrases of your own, including one or more of the succeeding chords in each. Vary your key each time (transposing the given chords), and use both major and minor forms of the key (making the necessary modifications of the 9th).



11. The "essential" chord of the 9th (particularly in the form known as the Diminished 7th) is frequently decorated by "appoggiaturas" above or below its various notes, *e.g.*—



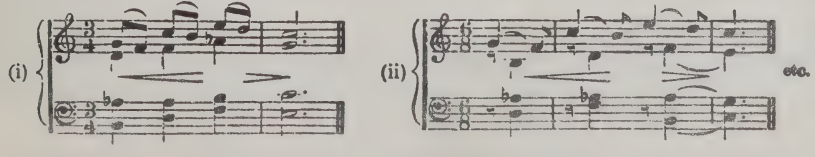
Examples (*c*), (*i*) and (*j*) shew that the root itself is sometimes sounded as an "unessential" note against the 9th, when it loses its fundamental character altogether, and needs resolution. Examples (*d*) and (*j*) are illustrations of the fact that the "unessential" note a tone above the minor 9th makes no false relation with the 3rd of the chord. A beautiful instance of this is to be found in the "Intermezzo" of Schumann's Pianoforte Conerto:—

EXERCISES (*Cont^d.*).

G. Play, in four parts (or amplified for the Pianoforte), the chord of the Diminished 7th (in its various positions) in all keys—major and minor—and "decorate" its several notes with appoggiaturas above and below them. Do not confine the appoggiaturas to the Treble part. Resolve on Tonic harmony.

H. Harmonize the following fragments, using Diminished 7th harmony during the prevalence of the |___|. Resolve on Tonic harmony.

(*a*) 5 4 , 8 7 , 3¹ 2¹ , 8

*** The above might be treated as follows:—

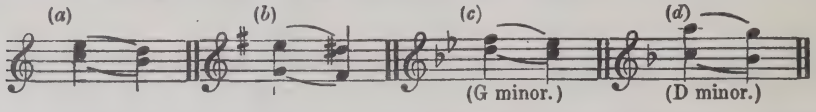


* "Appoggiatura" 11th.
† "Appoggiatura" 13th.
} Compare with examples in Chapter XVII, Sec. 7.

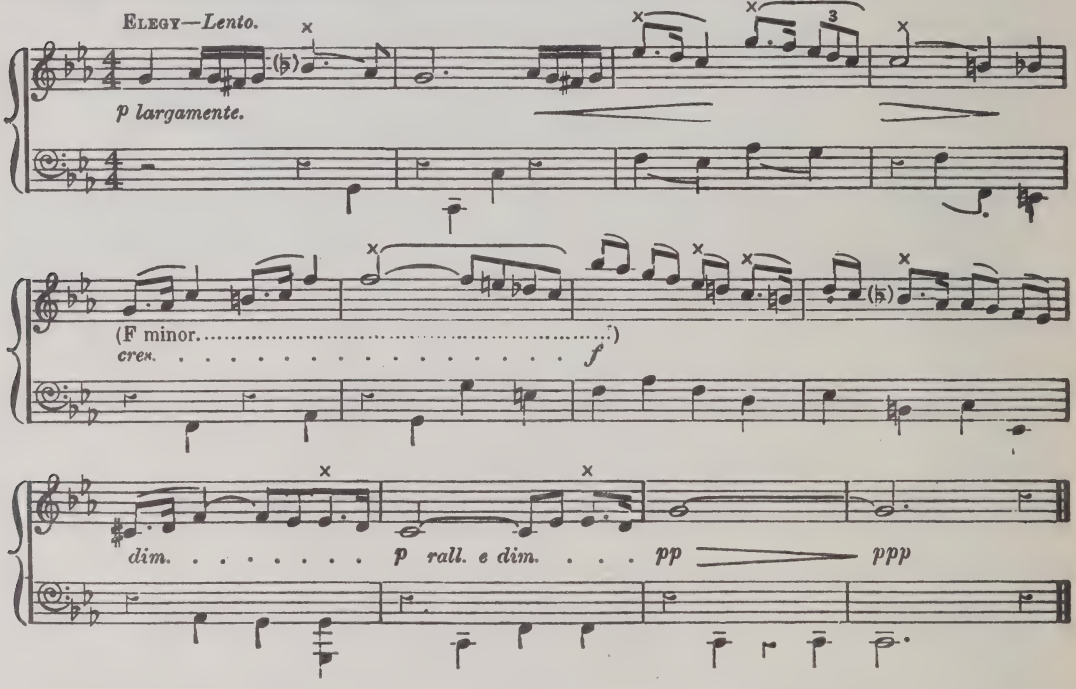
(*b*) 3 4 , 7 6 , 5 ; (*c*) 7 8 , 5 4 , 3 2 , 8 7 , 8 ;

(*d*) 6 7 , 2 2 , 3 4 , 4 5 ;

I. Harmonize the following double appoggiaturas with Diminished 7th harmony (in various positions), and resolve in each case upon Tonic harmony :—

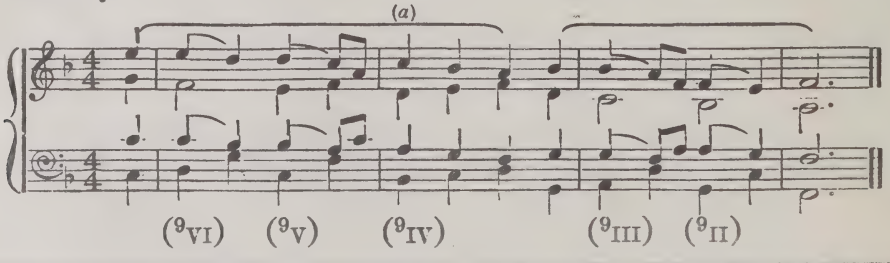


J. Harmonize the succeeding melody in full harmony for the Pianoforte. Wherever a × is found, the note so indicated should be harmonized with a Dominant 9th chord :—



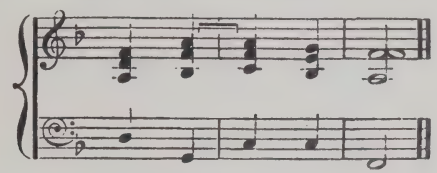
II.—SECONDARY CHORDS OF THE 9TH.

12. Chords of the 9th formed diatonically upon other degrees of the scale than that of the Dominant are much rarer and more difficult of introduction than chords of the 7th upon the same degrees. The following passage illustrates a series of secondary 9ths.* It will be seen that the 9th falls a 2nd in each case, and that the 7th (which should always be included) resolves similarly :—



* As a secondary 9th contains *five* notes, it is of course necessary to omit one of the notes of the complete chord ; this is almost invariably the 5th. In five-part harmony this necessity would not arise.

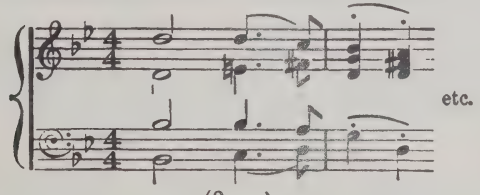
13. As will be seen by the preceding example, a secondary chord of the 9th most frequently resolves upon a chord whose root is a 4th above its own; but that on the Supertonic often resolves more freely, upon *Tonic* harmony (the 9th *remaining*), thus :—



(^{9}II) $(^{\text{I}}\text{c})$

and that on the Subdominant (as at (*a*) in Sec. 12) upon *Dominant* harmony. In each of these cases the chords of the 9th follow the same procedure as the Secondary 7ths on the corresponding degrees of the scale. (*See* Chapter XXI, Sec. 2). Sterndale Bennett has a very happy instance of the Subdominant 9th resolving on Dominant harmony :—

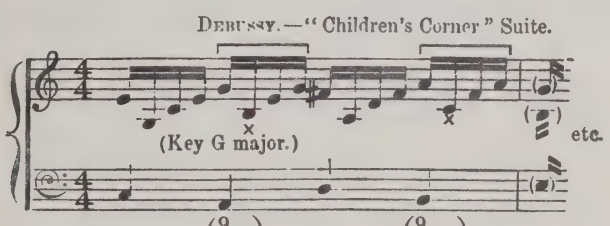
STERNDALE BENNETT.—"Woman of Samaria."



$(^{9}\flat\text{IV})$

14. Debussy introduces an interesting sequence of Secondary 9ths in his "Doctor Gradus ad Parnassum" :—

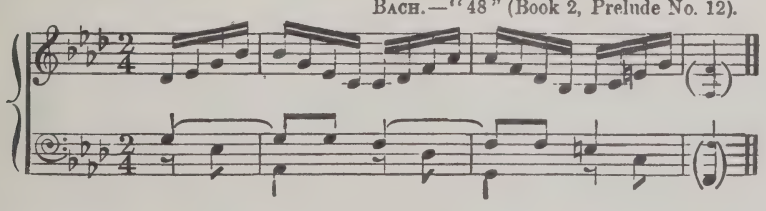
DEBUSSY.—"Children's Corner" Suite.



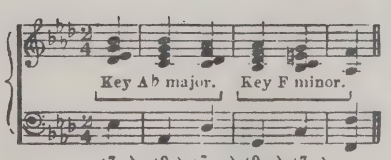
(^{9}II) (^{9}III)

and a striking example of alternate diatonic 9ths and 7ths is afforded by the 12th Prelude of Book 2 of Bach's "48" :—

BACH.—"48" (Book 2, Prelude No. 12).

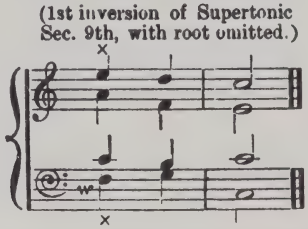


Harmonic scheme :—



(^{7}v) (^{9}I) (^{7}IV) (^{9}II) (^{7}v)

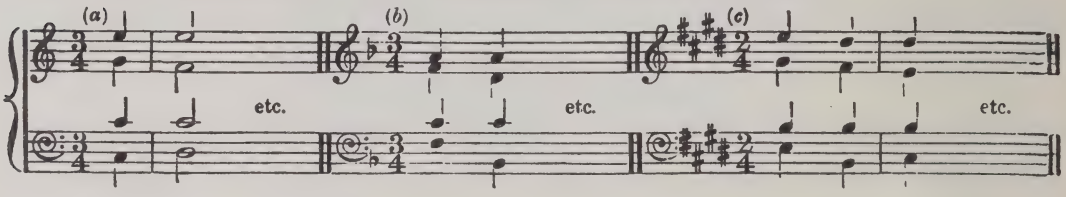
15. The inversions are impracticable with the root included; with this note omitted, they become identical with Secondary 7ths, *e.g.*—

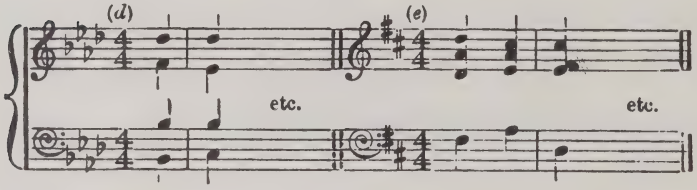


Clearly, the above chord is nothing more than the Secondary 7th upon the Subdominant, resolving upon Dominant harmony.

EXERCISES UPON SECONDARY 9THS.

A. Resolve the following chords, bringing each exercise to a full close.

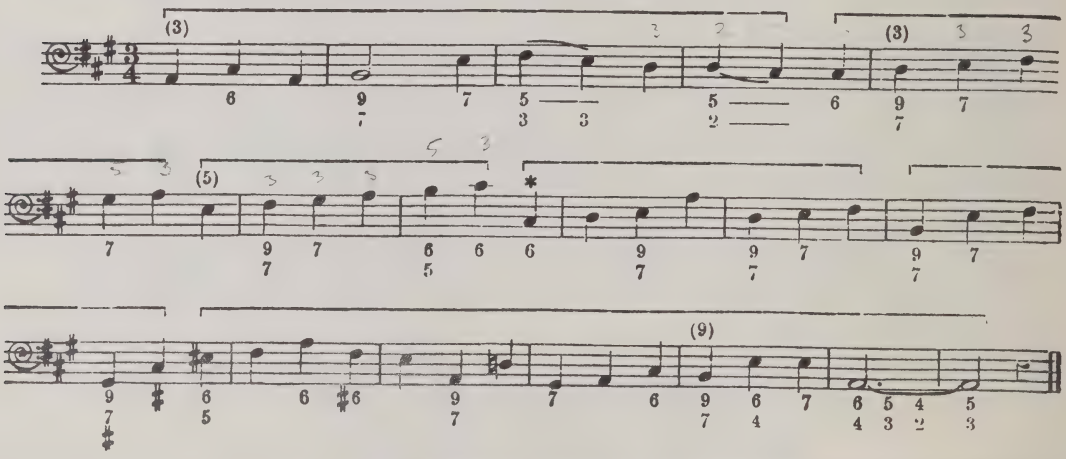


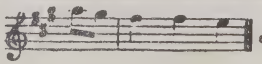


(*f*) Play and write the following (in five parts), in various *major* keys.

V ^{9}VI ^{7}II ^{9}V I ^{9}IV ^{7}V I

B. Harmonize the following Figured Bass in four parts :—

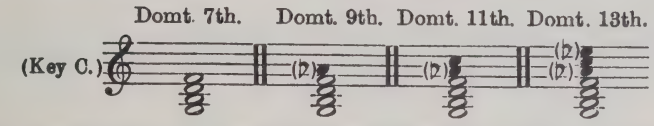


* Let the melody here run thus :—  etc.

CHAPTER XXIV.

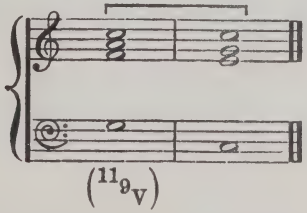
CHORD OF THE DOMINANT 11TH.

1. THEORETICALLY (as was seen in Chapter XVII), the addition of thirds above the chord of the Dominant 7th produces in succession the chords known as Dominant 9ths, 11ths and 13ths respectively:—



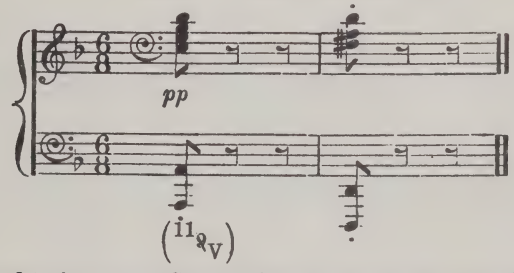
The 11th and 13th (like the 9th) are frequently nothing more than accented passing-notes or Appoggiaturas sounded against the Dominant 7th harmony, and little need be said as to their treatment beyond what has already been set forth in preceding chapters. Sometimes, however, the 11th and 13th assume the character of "essential" notes, and it is to their use under such conditions that the following remarks will mainly apply.

2. The true "chord of the Dominant 11th" exists only in the root-position, and is of very rare occurrence; in four parts the notes present are the root, 7th, 9th and 11th, thus:—



In the resolution upon Tonic harmony—its most frequent progression—the 11th *remains*, while the 7th and 9th fall in the usual way. Grieg has a delightful example of this chord in his "Vöglein":—

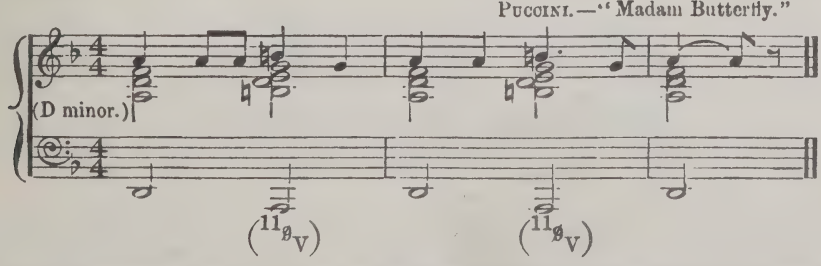
GRIEG.—Lyrische Stücke (Op. 43).



*** Not being limited to four parts, Grieg includes the 5th of the chord; the 3rd is *always omitted.*

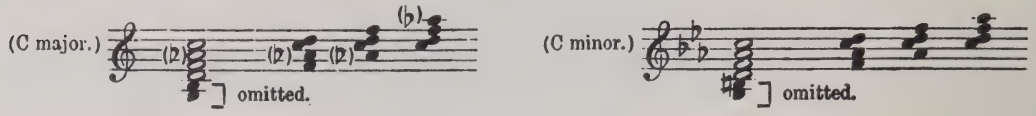
Another very striking instance of the true Dominant 11th is to be found in the 2nd Act of "Madam Butterfly":—

PUCCINI.—"Madam Butterfly."

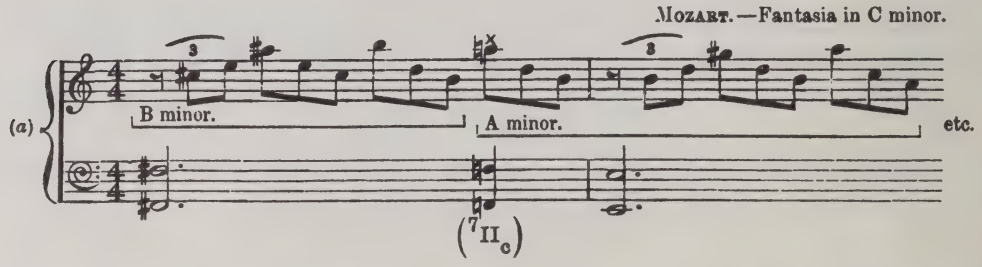
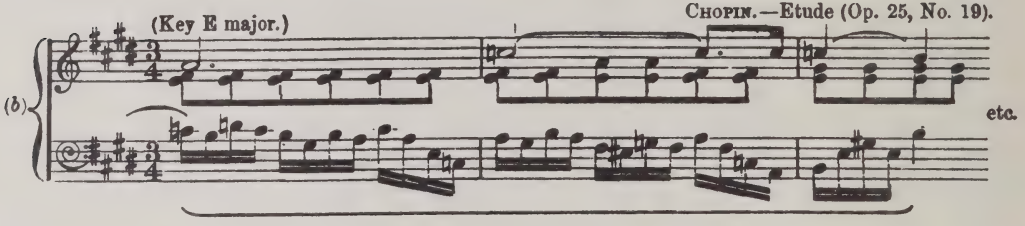


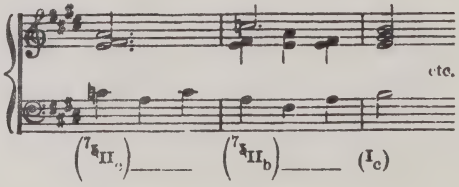
where the 11th is accompanied by the *major* 9th—an unusual proceeding in a minor key.

3. In all the inversions the root is omitted, as well as the 3rd, and the chord then consists of the *four upper notes only* of the entire series :—



becoming identical with the Secondary 7th upon the Supertonic treated of in Chapters XX and XXI—with or without the chromatic alteration of its 5th. Beyond the examples and remarks that follow, further comment is unnecessary.

INVERSIONS (SO-CALLED) OF THE DOMINANT 11TH (= SECONDARY 7TH UPON THE SUPERTONIC).

Theoretically it would be possible to analyse the chord marked × as the fourth inversion of a chord of the Dominant minor 9th and 11th in A minor (with root and 3rd omitted); but it is far simpler to think of it as the Secondary 7th of the Supertonic, in its second inversion.

The above extract shews various positions of the Supertonic Secondary 7th—with its 5th chromatically lowered—resolving upon the second inversion of the Tonic triad. The following is the simple harmonic scheme, omitting passing-notes, etc. :—

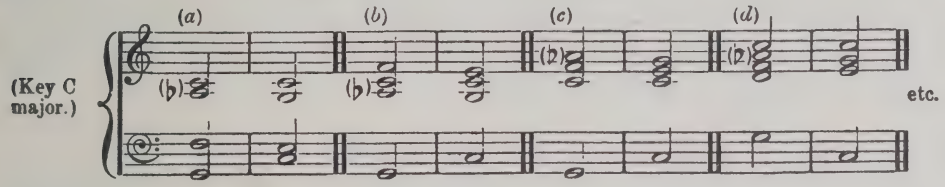


Again, it would be possible (theoretically) to regard the chord of the 7th as being derived from an absent Dominant root, and to explain it as a chord of the Dominant minor 9th and 11th (with root and 3rd omitted). But there is little object in doing so.

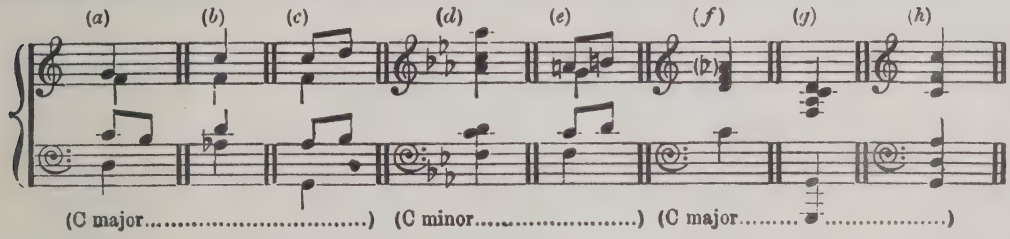
EXERCISES UPON THE DOMINANT 11TH.

Note.—From the remarks in the present chapter, it will be clear that few exercises will be needed upon the Dominant 11th, as most of the combinations sometimes described as forming different aspects of that chord have already been treated of in the exercises upon the Accented Passing-note, or Appoggiatura, and upon Secondary 7ths.

A. Play and write the true "chord of the 11th" (Sec. 2, p. 215), in various major and minor keys, resolving it upon Tonic harmony. Place the parts above the bass-note in different positions from time to time, *e.g.*—



B. Play and write (for the Pianoforte) rhythmical phrases and sentences, introducing the following harmonies, which should also be transposed into other keys.



CHAPTER XXV.

CHORD OF THE DOMINANT 13TH.

1. As in the case of the Dominant 11th, many of the combinations frequently classified as 13ths merely result from the sounding of Appoggiaturas against the chord of the Dominant 7th or the Dominant 9th ; others, again, are nothing more than Secondary 7ths (with, occasionally, one or more of their notes chromatically altered). As a consequence, the number of genuine chords of the 13th is comparatively small, as will be seen from what follows in the present chapter.

2. The complete chord of the Dominant 13th, as built up from the Dominant root by the addition of 3rds, will be found on page 150, but it need hardly be said that it is rarely, if ever, found with all its notes present.* Certain selections from the whole series are made, and—as with the 11th—it is when the four upper notes of that series are so drawn upon that the combinations become identical with Secondary chords of the 7th.

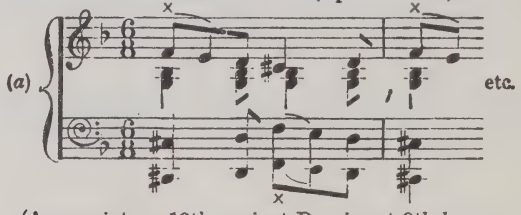
3. Like the 9th and 11th, the 13th from the Dominant may—

(i) Move as an Appoggiatura, up or down to a note of the chord of the Dominant 7th or 9th ;

(ii) Resolve (as an "essential" note) upon a new chord.

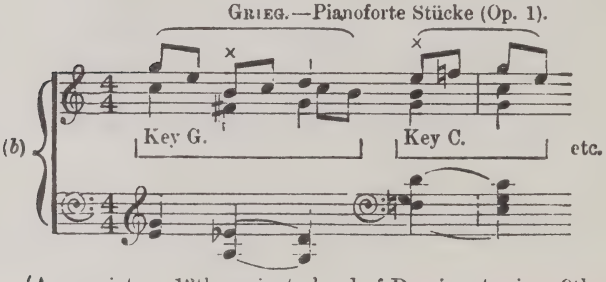
4. The Appoggiatura combinations are many and varied ; several of these have already been given in Chapter XVII, Secs. 7 and 8 ; others will be found in Chapter XXIII, Sec. 11 ; it is therefore hardly necessary to say more about them here. The following extracts, however, are interesting :—

BEETHOVEN.—Sonata (Op. 10. No. 3).



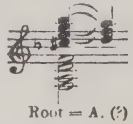
(Appoggiatura 13th against Dominant 9th harmony.)

GRIEG.—Pianoforte Stücke (Op. 1).



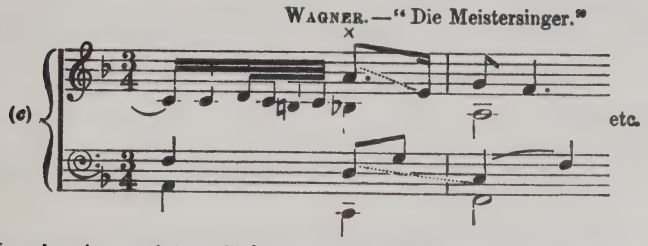
(Appoggiatura 13th against chord of Dominant minor 9th in G major, and Dominant 7th in C major.)

---

* The celebrated example from Beethoven's Choral Symphony, made so much of by many theorists as an instance of a *complete* chord of the Dominant 13th : —

Root = A. (?)

even if—as is not improbable—it did not arise from an error in the original horn-parts, is far more rationally considered merely as the first inversion of a chord of D minor, with four accented passing-notes. This is clearly the effect upon the musical ear.

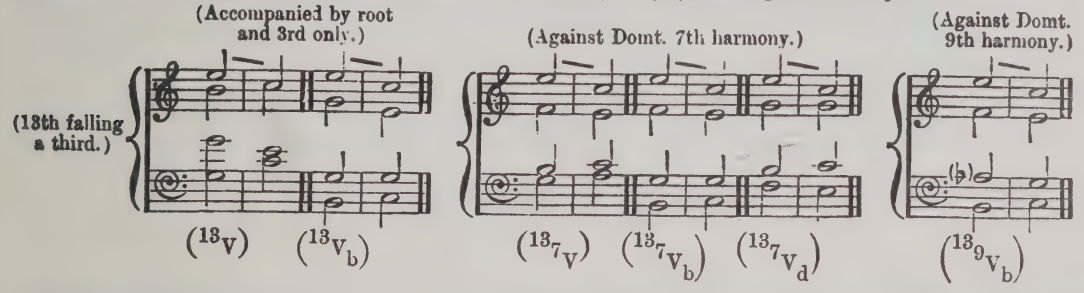
WAGNER.—"Die Meistersinger."



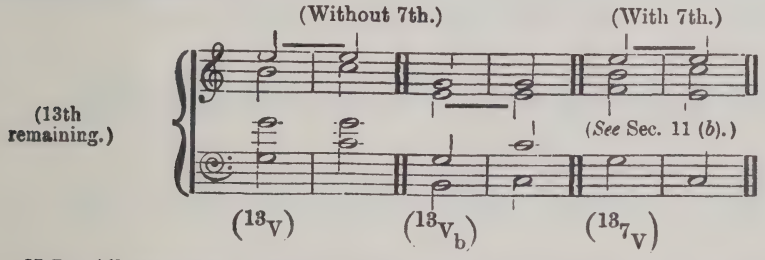
(Leaping Appoggiatura 13th against Dominant major 9th harmony.)

THE 13TH AS AN "ESSENTIAL" NOTE.

5. When the 13th is taken as an essential note it displaces the 5th of the chord, and resolves—usually upon Tonic or Submediant harmony—by (i) falling a 3rd,* *e.g.*—

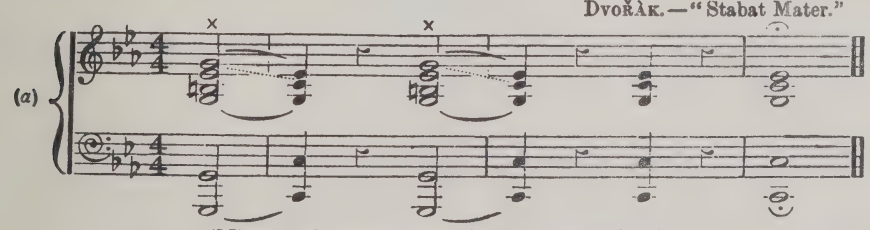


or (ii) remaining stationary, *e.g.*—

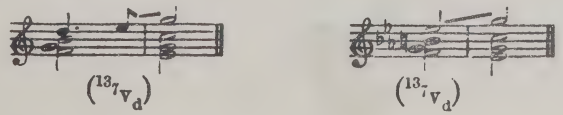


N.B.—All the above may be taken equally well in the minor form of the key, in which case, however, the 13th should always be *minor*. It will be observed that *the 5th and 13th never appear together.*

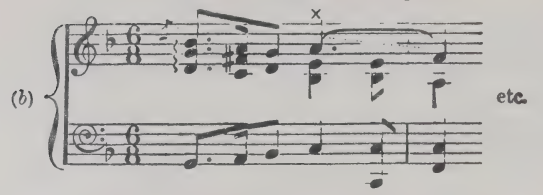
6. The following extracts contain typical examples of the "essential" chord of the 13th :—

DVOŘÀK.—"Stabat Mater."

(Minor 13th accompanied by root and 3rd only—
13th falling a minor third.)

* Exceptionally the 13th *rises* a 3rd thus :—

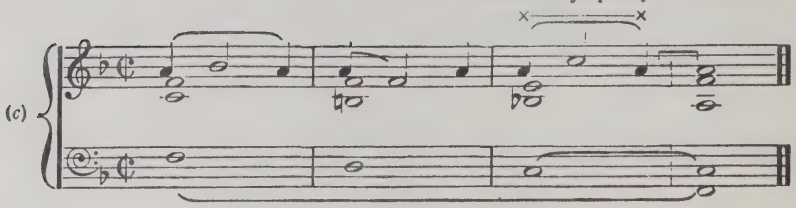


CHOPIN.—Ballade in F (Op. 38).



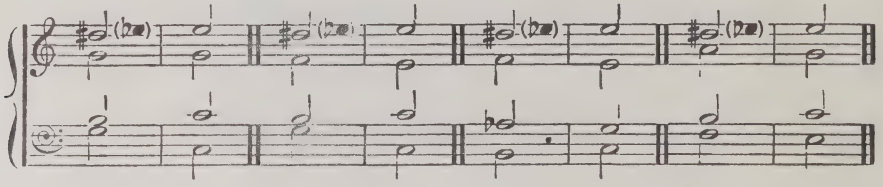
(Major 13th accompanied by root, 3rd and 7th—
13th falling a major third.)

CÉSAR FRANCK.—Symphony in D minor.



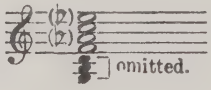
(Major 13th accompanied by root, 3rd and 7th—
13th remaining stationary.)

7. The "sharpened 5th" of the Dominant chord in a major key is sometimes spoken of as a Minor 13th in disguise, the D♯ in the following examples, for instance, being regarded as "Expedient False Notation" for E♭, the minor 13th from the Dominant root (G):—



It is, however, simpler, and in accordance with the actual musical impression produced, to consider the D♯ as a "chromatic alteration" of the 5th of the Dominant chord (D♮).—(*See* Chapter XXII).*

8. When the 11th is included in the chord of the 13th, the harmony usually consists of the four upper notes only of the complete series:—



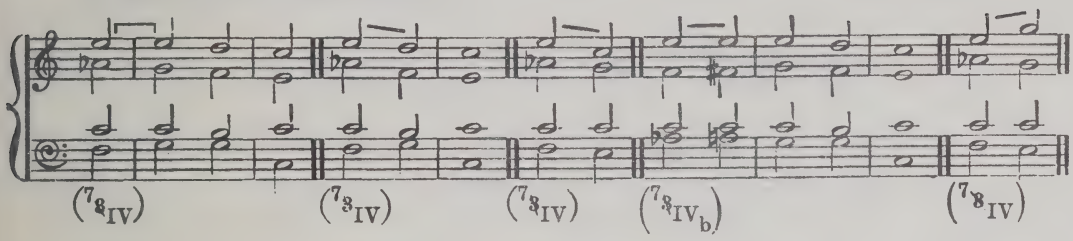
It then becomes identical with the Secondary chord of the 7th upon the Subdominant, and it is quite needless to refer the combination to a supposed Dominant root. (For examples *see* Chapter XXI, Secs. 3 and 5.)

---

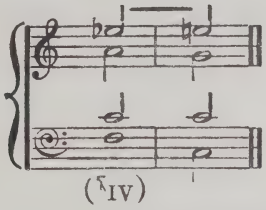
* It is significant that no composer would dream of writing E♭ in such cases as the above, however he might regard the origin of the chord, for the simple reason that he would be making the passage more difficult to read, the E♭ needing, in the majority of cases, to be contradicted by a ♮ in the following chord.

9. The occasional lowering of the 3rd and 7th by "chromatic alteration" produces many new and interesting varieties of this chord, *e.g.*—

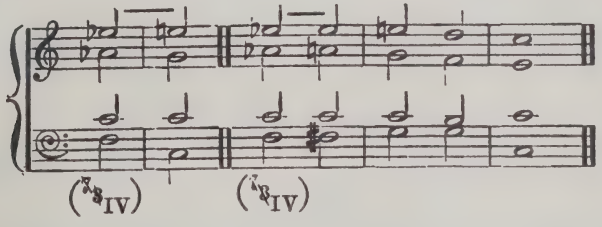
I.—With 3rd chromatically lowered.

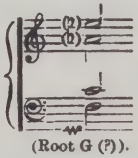


II.—With 7th chromatically lowered.*



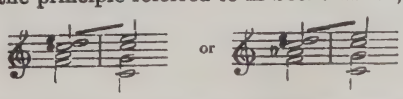
III.—With both 3rd and 7th chromatically lowered.*



N.B.—All the above chords *could*, of course, be regarded as having a Dominant origin, thus:—

and then the F, A, C, and E would be considered as the 7th, 9th, 11th, and 13th respectively, from G root. This method of analysis is, however, somewhat cumbersome, and pre-supposes an "absentee" root whose existence is at the least doubtful.

---

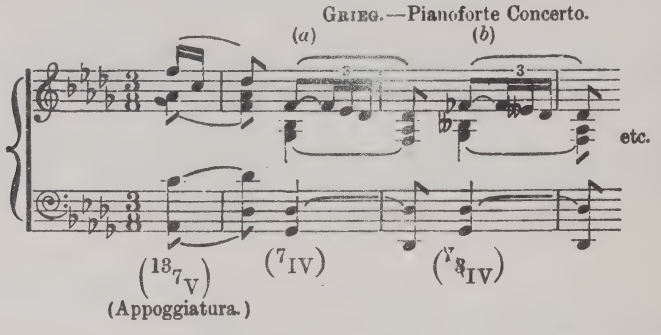
* It is possible that these chords are actually instances of the "chord of the Added 6th" $(^{7}\mathrm{II}_{b})$, with the 6th chromatically raised, on the principle referred to in Sec. 7 above, *e.g.*—



(*See* also Chapter XXVIII, Sec. 9.)

The classification is unimportant, when once the musical effect has been aurally discerned and memorized.

10. The following example from Grieg is interesting as affording a very beautiful use of $^{7}_{IV}$ and the chromatic alteration of the same into $^{\flat 7}_{8\,IV}$.

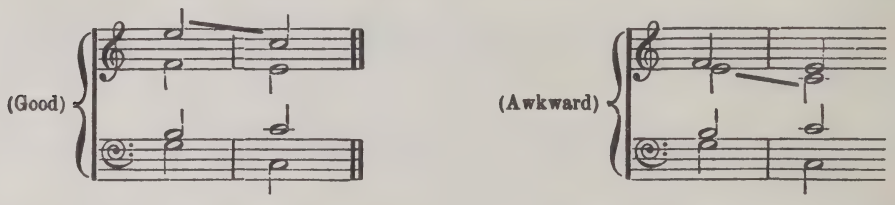


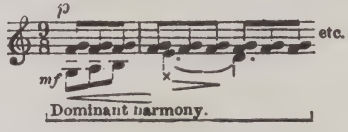
The progressions at (*a*) and (*b*) give the undoubted impression of a Plagal Cadence in each case, *i.e.*, of Subdominant (not Dominant) harmony proceeding to Tonic.

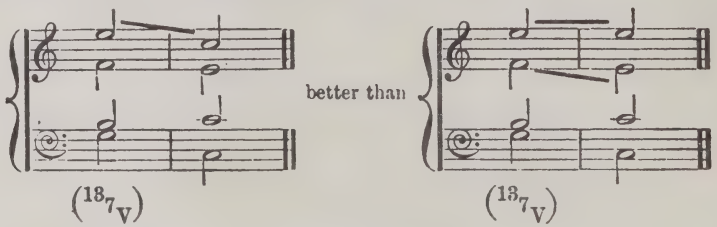
PART-WRITING.

11. In addition to the important rule that the note upon which the 13th resolves should not be sounded against it, the following hints are useful:—

(*a*) The 13th, in by far the greater number of instances, sounds better *above the 7th, e.g.*—



N.B.—The *Appoggiatura 13th*—particularly if it is melodically prominent—is, however, quite frequently of good effect below the 7th, *e.g.*—

(*b*) If the 7th is included in the chord, it is better—as a rule—that the 13th should not resolve by *remaining*, but that it should leap a 3rd down, *e.g.*—



(*See*, however, example from César Franck in Sec. 6.)

EXERCISES UPON THE DOMINANT 13TH.

Note.—As many of the combinations frequently classified as chords of the 13th have already been dealt with in the exercises upon the Appoggiatura and upon Secondary 7ths, the following exercises merely supply further practice in those directions, and include examples of the few cases where the 13th comes into neither of these categories.

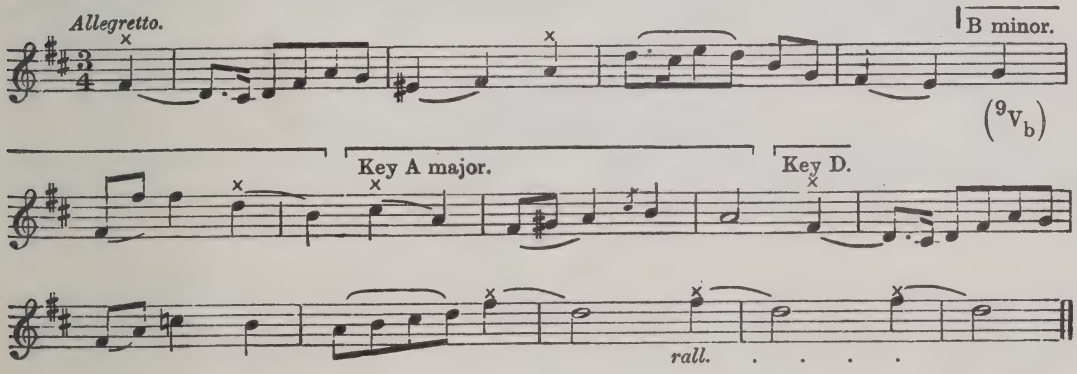
A. Play the progressions in Sec. 5 in various major and minor keys.

B. Play the following chord-successions in various major and minor keys :—

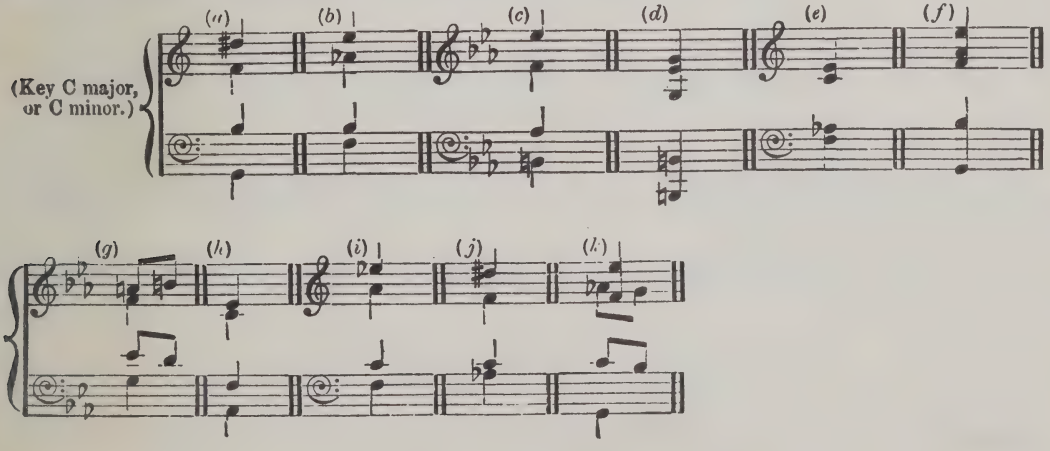
$^{13}{}_{7}\mathrm{V}$ VI II_{b} $^{13}{}_{7}\mathrm{V}$ I ; VI $^{7}\mathrm{II}_{b}$ $^{13}{}_{9}\mathrm{V}_{d}$ I_{b} ; $^{13}\mathrm{V}_{b}$ I $^{13}\mathrm{V}$ VI

(No 7th in chord of 13th.)

C. Harmonize the following melody, including "essential" chords of the 13th (direct or inverted, and with or without the major or minor 9th—as shewn in Sec. 5)— at the ×.



D. Play and write phrases and sentences introducing the following harmonies. Transpose into various major or minor keys.



inverted ellision
(anticipated note)

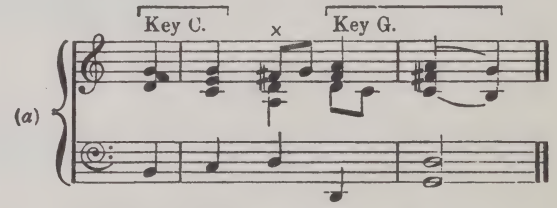
CHAPTER XXVI.

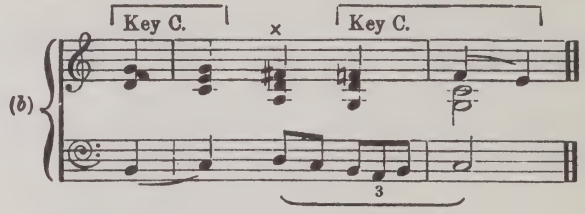
CHROMATIC HARMONY.

I.—THE SUPERTONIC CHROMATIC TRIAD AND CHORD OF THE SEVENTH.
II.—THE TONIC CHROMATIC CHORD OF THE SEVENTH.

1. As the art of music developed, particularly on its instrumental side, the boundaries of the key began in course of time to be enlarged, not only by means of the "chromatic alterations" already spoken of in Chapter XXII, but by the use of certain diatonic chords belonging to adjacent keys in such a transient manner as to cause no actual modulation from the original Tonic centre. The chords that obviously lend themselves most readily to this procedure are the *Dominant harmonies* of the Dominant and Subdominant keys.

2. In example (*a*) below, the Dominant chord of the key of G clearly produces a modulation from key C to key G :—

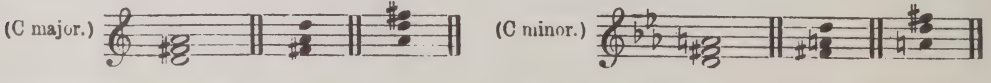


but in example (*b*)—for the reason that no single chord defines or establishes a key—no modulation takes place at all, the key of C major both preceding and following the chord in question, which therefore becomes a *chromatic triad* on the Supertonic of that key. The tendency of the F♯ to suggest G major is clearly checked by the succeeding F♮ :—

3. A chromatic chord, therefore, is a chord which contains one or more notes foreign to the diatonic scale, but which, although *suggesting* or threatening a modulation, does not actually disturb the original key-centre.

N.B.—The major 6th and minor 7th of the Melodic Minor scale are not chromatic, but diatonic—even although the former has of necessity to be indicated by an accidental.

THE SUPERTONIC CHROMATIC TRIAD.

4. The chromatic triad on the Supertonic is a major triad, its 3rd being the chromatic note,* *e.g.*—



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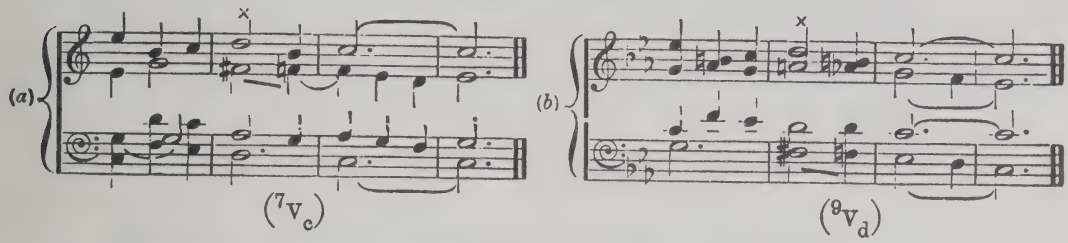
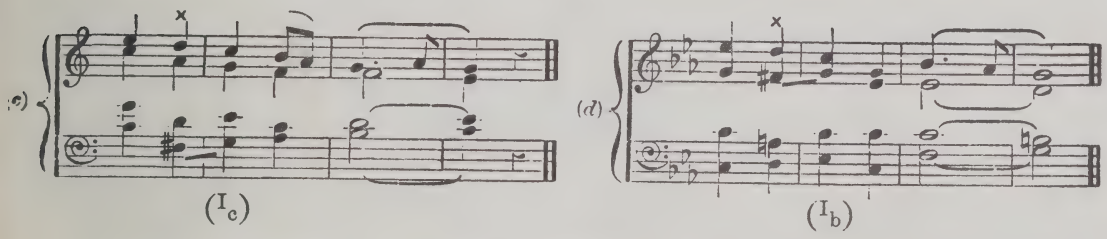
* *See* note in Sec. 3 above with reference to the 5th of this chord in the minor form of the key.

5. If followed by a Dominant common chord, this triad induces a modulation to the Dominant key (*see* example (*a*) in Sec. 2) ; it is therefore chromatic only if it is succeeded by—

(i) A chord containing a note that contradicts the sharpened 3rd (usually a Dominant *discord*—7th, 9th, etc.) :—

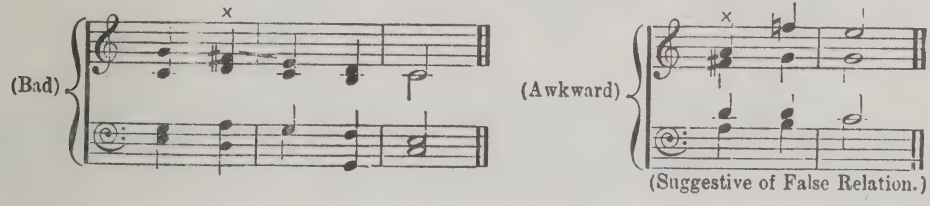


or (ii) some form (usually an inversion) of Tonic harmony :—

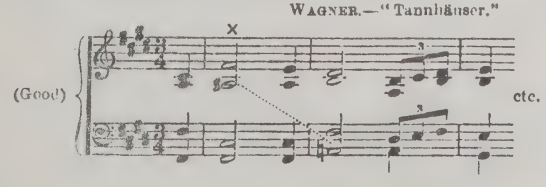


*** Compare the more usual progressions of the *diatonic* triad of the Supertonic given in Chapter XIII, Secs. 3 and 4, with the above examples.

6. The chromatically raised 3rd is as sensitive as a Leading-note, and *should not be doubled.** In whatever part of the harmony it appears it should—in proceeding to the next chord—either rise or fall a semitone (*see* above examples).



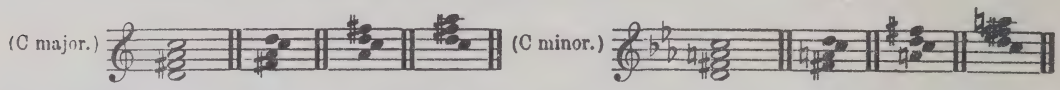
N.B.—The chromatic 3rd, however, in many cases does *not* stand in False Relation to the 7th of the Dominant harmony, sounded in another part in the following chord, *e.g.*—



* It is, of course, the Leading-note of the Dominant key. The prohibition as to doubling is relaxed at times in amplifying four-part harmony for the Pianoforte, but even then, only under certain well-defined conditions (*see* Appendix B).

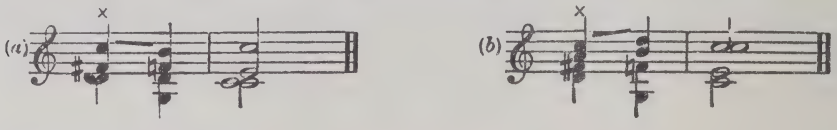
THE SUPERTONIC CHROMATIC CHORD OF THE 7TH.

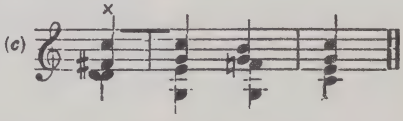
7. A 7th is frequently added to the Supertonic chromatic triad, when the chord produced is obviously identical with the *Dominant 7th* of the Dominant key :—



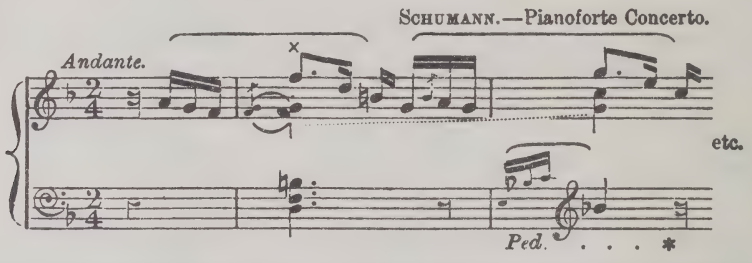
This chord is treated in practically the same manner as the chromatic triad already considered, the only additional point to be noticed being that of the movement of the 7th itself which, in the majority of cases—

(i) Falls (or, at times, *rises*) one degree, if followed by a Dominant discord :—

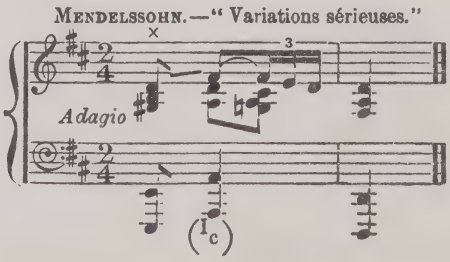


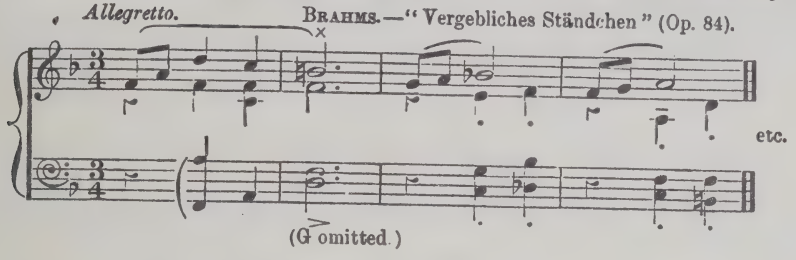
or (ii) *remains*, if followed by Tonic harmony :—

*** Compare the resolutions of the diatonic (Secondary) chord of the 7th upon the Supertonic (Chapters XX and XXI) with the above examples.

8. As the inversions follow the same principles of progression as the root-position, further remarks under this head are unnecessary. The succeeding extract from Schumann provides a beautiful example of the 2nd inversion of the Supertonic chromatic chord of the 7th, in key F, resolving upon the 1st inversion of the Dominant 7th :—



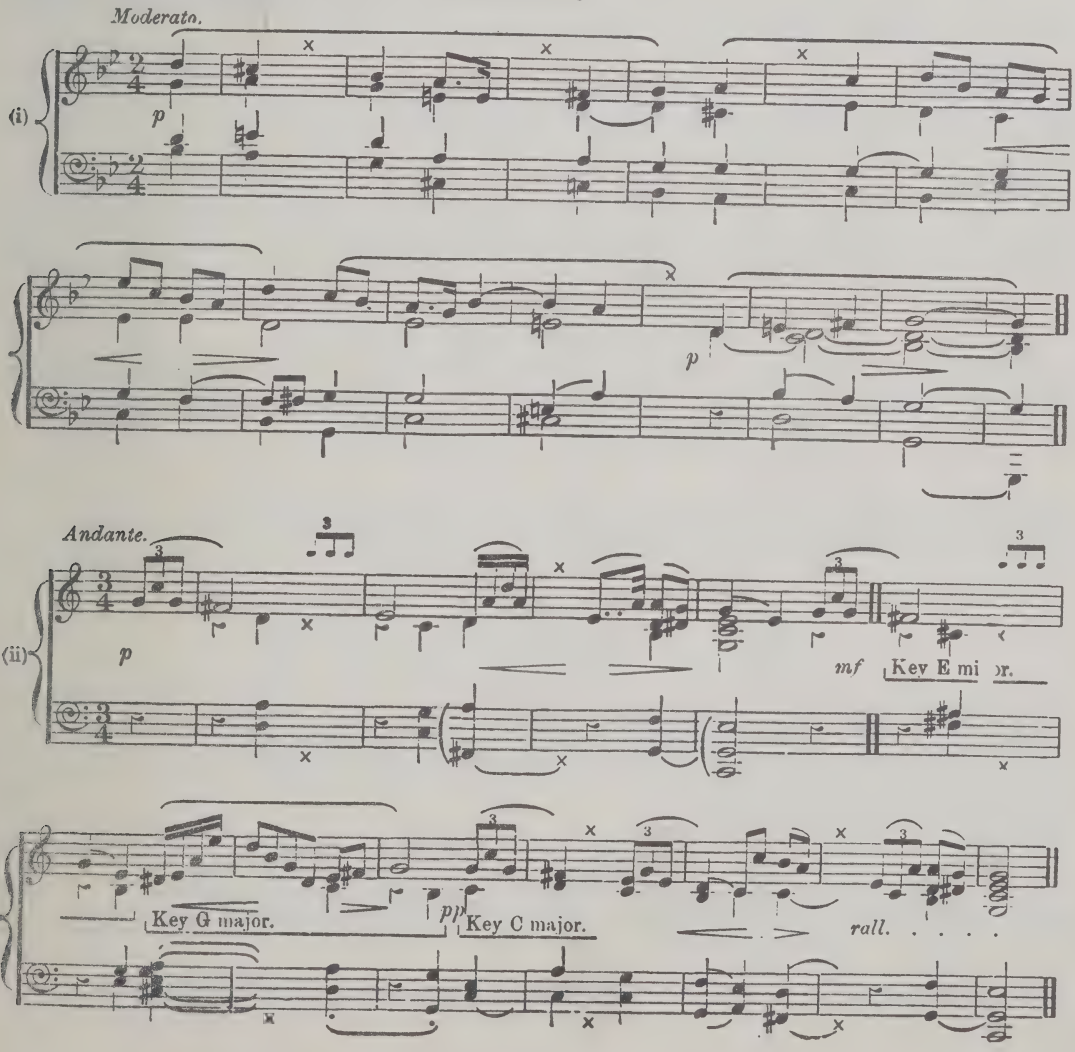
N.B.—The 7th rises, to avoid the doubling of the Leading-note (compare Chapter XV, Sec. 6).

9. Although the treatment of the 7th as detailed in Secs. 7 and 8 is that which is most frequently adhered to, it is not uncommon to find the 7th *leaping* to a note of the Tonic chord :—

10. As in the case of the chord of the Dominant 7th, the root is sometimes omitted (usually when the chord is in its second inversion), when the 7th may be freely doubled, *e.g.*—



EXERCISES UPON THE SUPERTONIC CHROMATIC TRIAD AND CHORD OF THE 7TH.

A. Insert a suitable chord in each blank space, in order to follow the Supertonic chromatic triad (or chord of the 7th) without changing the key :—



B. Play (and write from memory) the following progressions, arranging them in various times, and endeavouring to decorate them with passing-notes (accented and unaccented), and chord-figures. Transpose them into all keys, major and minor.

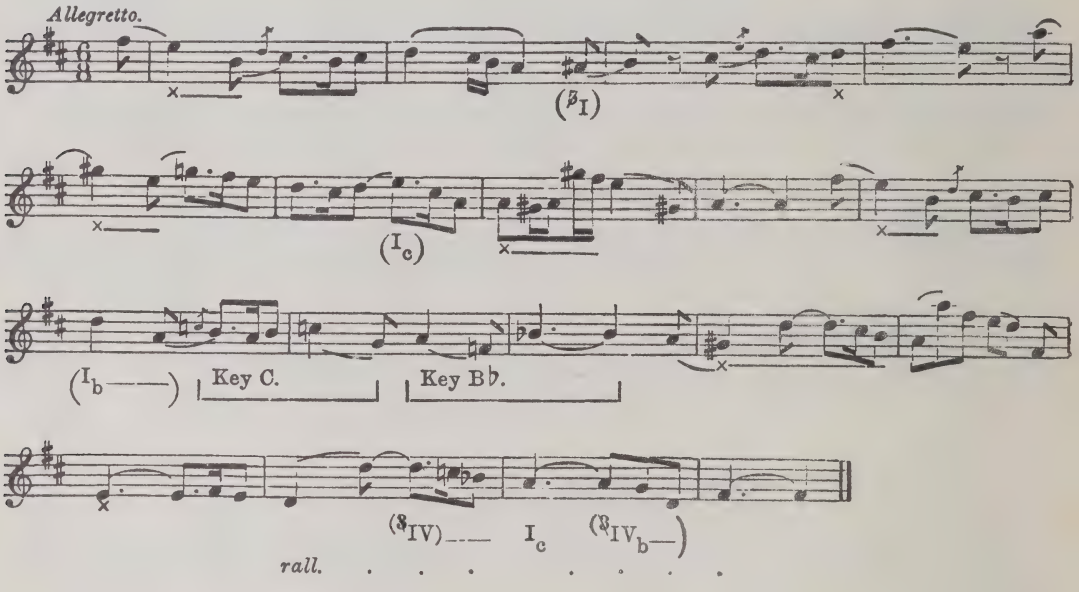
I I_b $^{\flat}II$ $^{7}V_b$ I ; I V VI $^{\flat}II_b$ I_c ^{7}V I ; I_c $^{7\flat}II_b$ $^{7}V_d$ I_b ;

I $^{\flat}II$ I I_b $^{7}II_b$ V ; I $^{7\flat}II_c$ I_c $^{9}V_d$ I_b ; I $^{\flat}II$ $^{\natural}IV$ I_c ^{7}V I ;

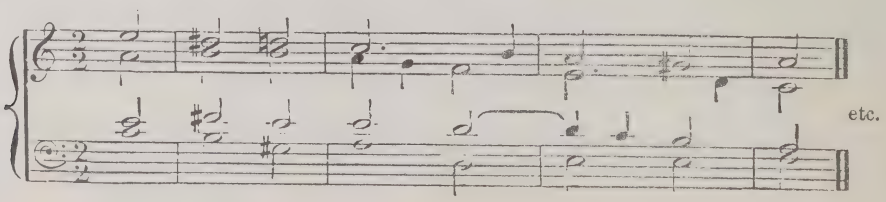
(In minor key only.) (In major key only.)

I_c $^{7\flat}II_c$ $^{7}V_b$ I ; I $^{7\flat}II_d$ $^{7}V_b$ I

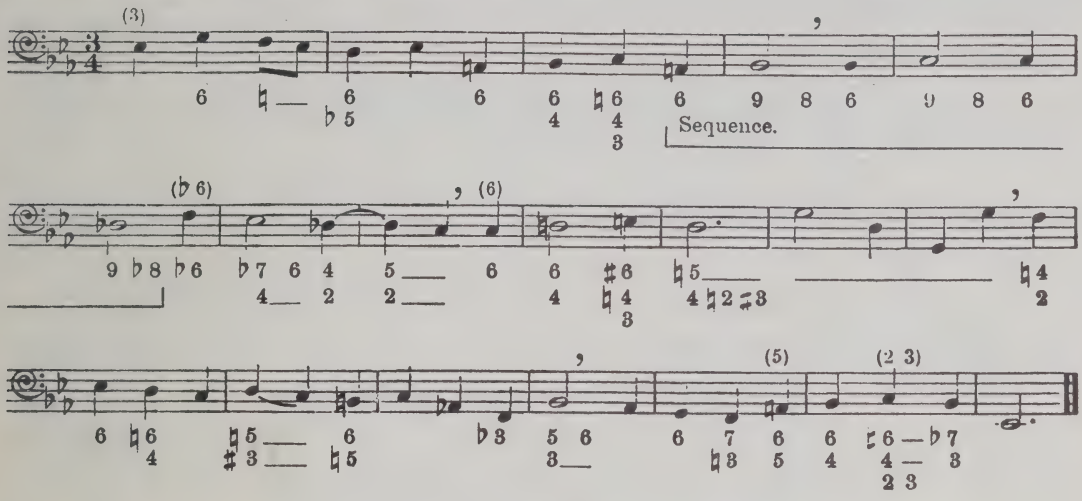
C. Harmonize the following melody for the Pianoforte, introducing a Supertonic chromatic triad (or chord of the 7th)—direct or inverted—at each ×.



D. Beginning as under, write a Long-metre Hymn-tune, in the key of A minor, modulating to the key of C major in the second line, touching the keys of E minor and D minor in the third line, and concluding with the fourth line in A minor. Introduce four examples of the Supertonic chromatic triad (or chord of the 7th), each to be treated differently from the others, during the course of the piece.

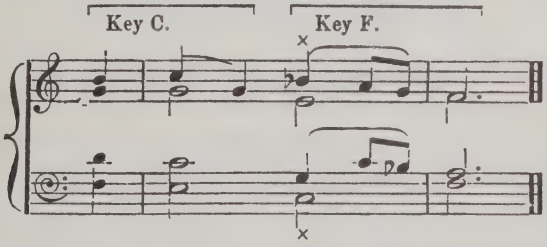


E. Work the following Figured-bass in four parts. Make the highest part as melodious as possible, introducing occasional passing-notes (in *any* of the parts), where suitable :—

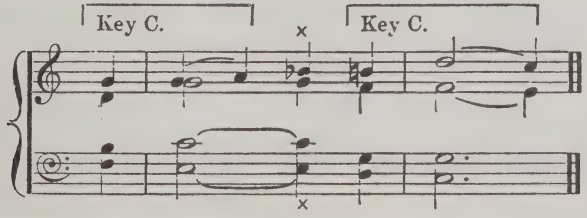


THE TONIC CHROMATIC CHORD OF THE 7TH.

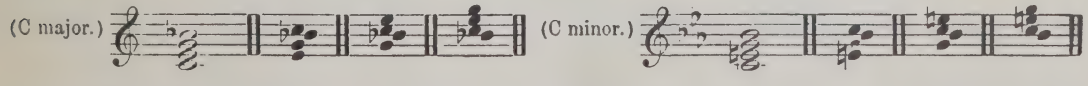
11. Just as the Dominant harmony of the Dominant key in Ex. (*a*) in Section 2 caused a modulation from C major to G major, so the Dominant 7th chord of the *Subdominant key* in the following passage produces an equally emphatic modulation to *F major* :—



12. This chord can, however, be also used in such a transient manner as not to affect the key-centre; it then becomes a chromatic chord of the 7th upon the *Tonic* :—



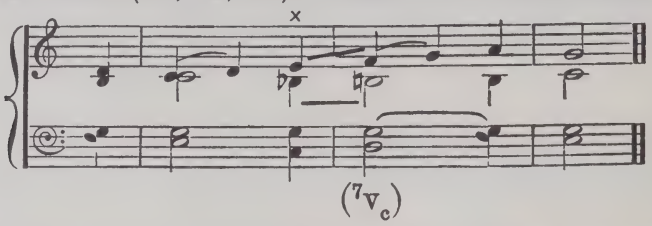
13. The various positions of the chord, in C major and C minor respectively, appear as follows :—



*** It will be observed that the 7th is chromatic in the major form of the key, the 3rd chromatic in the minor form.

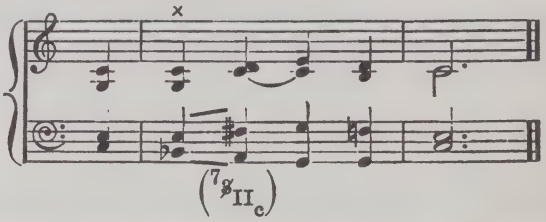
14. The Chromatic chord of the 7th upon the Tonic is far less frequently used than that on the Supertonic, and the opportunities for its effective introduction (unless accompanied by a minor 9th) * are somewhat rare, particularly in the minor key. It resolves upon—

(i) A Dominant discord (7th, 9th, etc.) as in Sec. 12 or in the following example :—

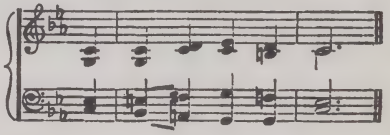


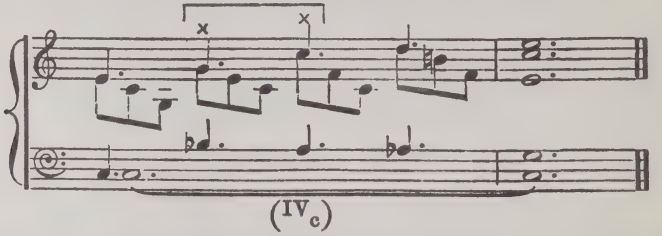
*** In this resolution the 3rd moves a 2nd up or down, and the 7th rises a chromatic semitone.

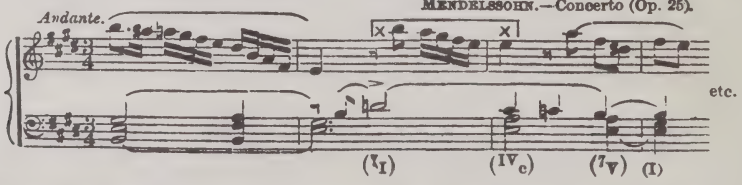
(ii) Supertonic chromatic harmony :—



*** Here the 3rd rises a *whole tone*, and the 7th falls a 2nd. This example would be equally effective in the minor form of the key, thus :—



(iii) A Subdominant triad, provided that some form of Dominant harmony immediately follows, to check the tendency towards the Subdominant key, *e.g.*—

*** In the above passage the Subdominant triad is succeeded by a Dominant minor 9th ; the B♭ is thus counteracted by a B♮, and the original tonality is undisturbed. A familiar and charming instance of this resolution is to be found at the conclusion of the slow movement of Mendelssohn's Pianoforte Concerto in G minor :—

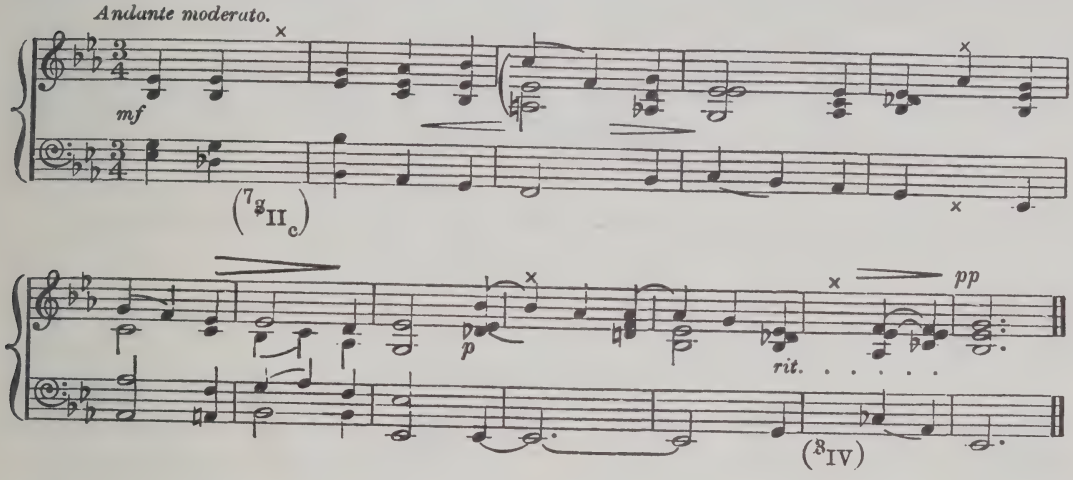


*** The Bass E in bars 2-4 of the above extract is a Tonic Pedal (*see* Appendix A).

* *See* Chapter XXVII.

EXERCISES ON THE TONIC CHROMATIC CHORD OF THE 7TH.

F. Insert a suitable chord at each ×, in order to follow the Tonic chromatic chord of the 7th without changing the key :—

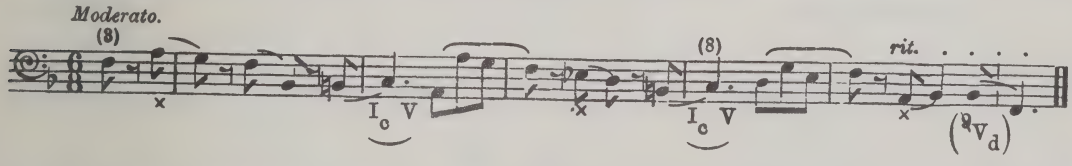


G. Play (and write from memory) the following progressions, arranging them in various times, and endeavouring to decorate them with passing-notes (accented and unaccented), and chord-figures. Transpose them into all keys.

$$\overline{\text{I}\quad {}^{7}\text{I}\quad {}^{7}\text{V}_{c}\quad \text{I}_{b}} \;;\; \overline{\text{I}\quad {}^{7}\text{I}_{d}\quad {}^{7}\sharp\text{II}_{c}\quad \text{I}_{c}\quad {}^{7}\text{V}\quad \text{I}} \;;$$

$$\overline{\text{I}_{b}\quad {}^{7}\text{I}_{b}\quad \text{IV}\quad {}^{9}\text{V}_{d}\quad \text{I}} \;;\; \overline{\text{I}_{b}\quad {}^{7}\text{I}_{b}\quad {}^{7}\sharp\text{II}_{b}\quad \text{I}_{c}\quad {}^{7}\text{V}\quad \text{I}} \;.$$

H. Harmonize the following Unfigured Bass: a Tonic chromatic chord of the 7th is implied at each ×. Do not leave the key of F major.



I. Write an exercise of your own (in four parts), introducing each of these progressions (in any key and in any order) :—

$$\overline{{}^{7}\text{I}_{d}\quad {}^{7}\sharp\text{II}_{c}} \;;\; \overline{{}^{7}\text{I}_{b}\quad {}^{7}\text{V}_{c}} \;;\; \overline{{}^{7}\text{I}\quad {}^{7}\text{V}_{c}}$$

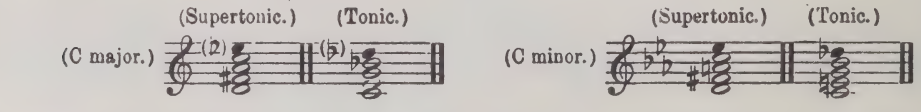
Begin and end in a major key, but modulate to the Relative minor in the course of the exercise.

CHAPTER XXVII.

CHROMATIC CHORDS OF THE NINTH, ELEVENTH AND THIRTEENTH.

I.—SUPERTONIC AND TONIC NINTHS.

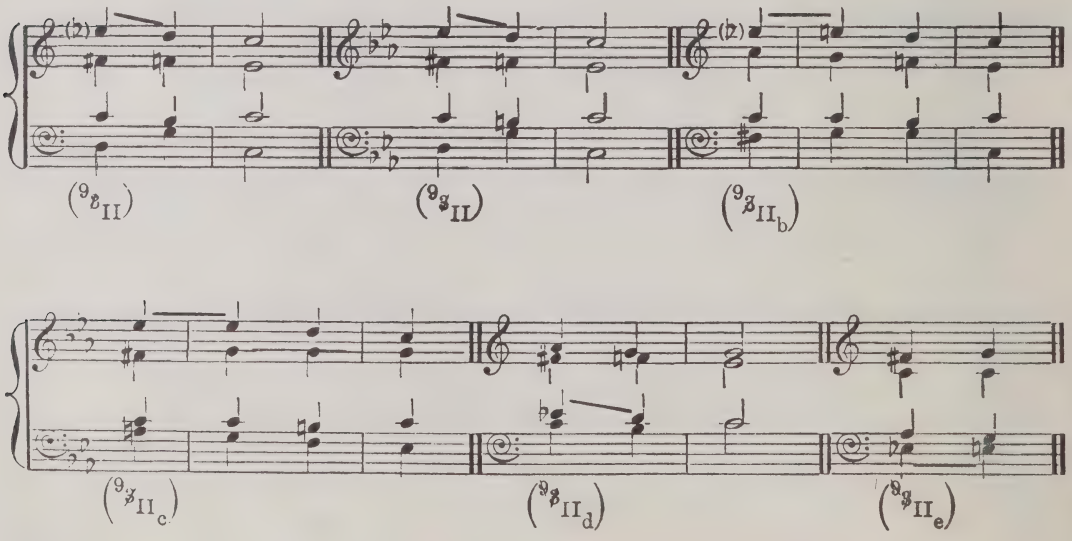
1. A MAJOR or minor 9th from the root may obviously be added to the Supertonic and Tonic chromatic chords of the 7th, under similar conditions as obtain in the case of Dominant harmony, *e.g.*—



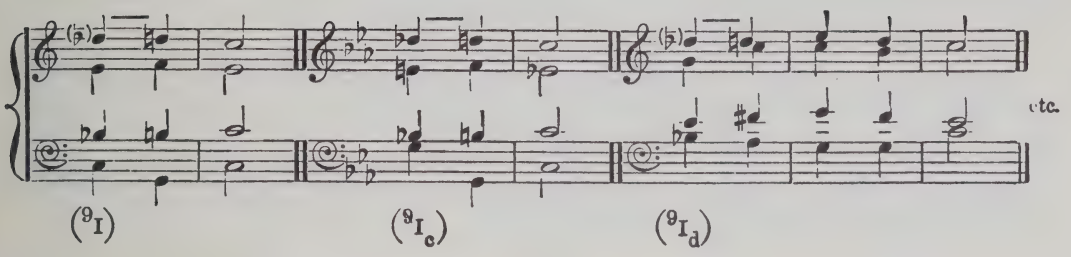
the 9th being either major *or* minor in the major key, and almost invariably minor in the minor key.

2. The 9th in these chords may, like the 9th of the Dominant, be (i) merely an Appoggiatura, when its treatment needs no further comment, or (ii) an "essential" note of the chord. In the latter case, the 9th will usually (*a*) move up or down a 2nd, or (*b*) remain, *e.g.*—

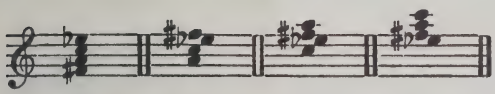
(i) Supertonic 9ths.

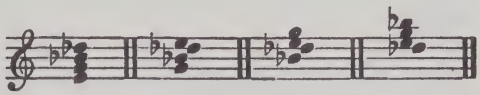


(ii) Tonic 9ths.



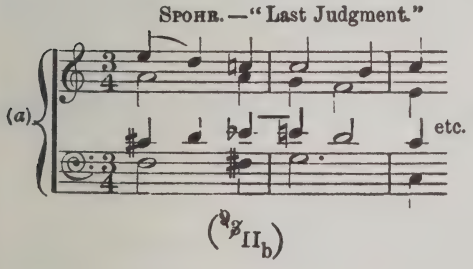
3. The inversions of these chords—in which the root does not appear—are much more often met with than the direct position, and in the case of the *minor* 9th they provide further instances of the familiar Diminished 7th chord :—


(Root D omitted.....)

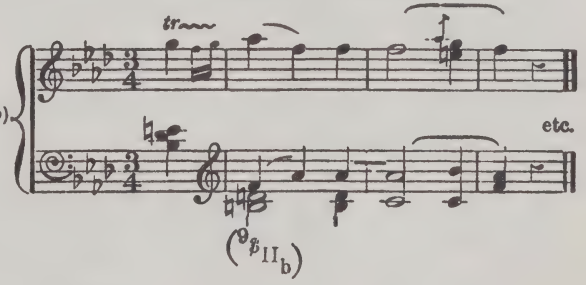

(Root C omitted.....)

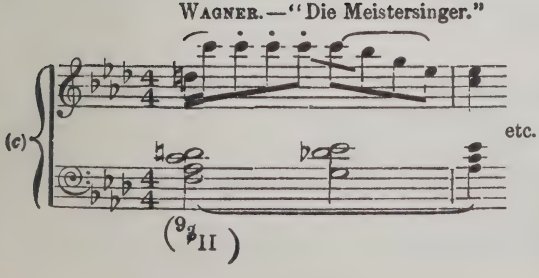
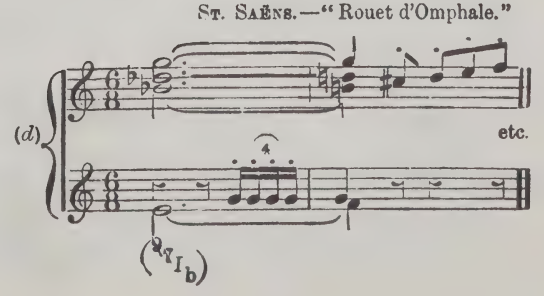
The following extracts illustrate some effective uses of the inversions of the "essential" Supertonic and Tonic 9ths :—

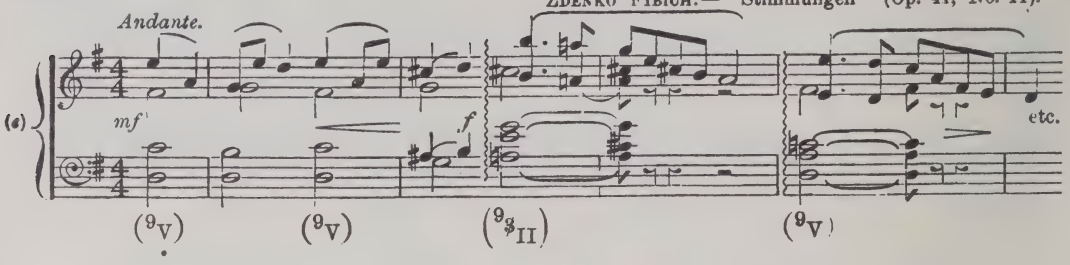
SPOHR.—"Last Judgment."

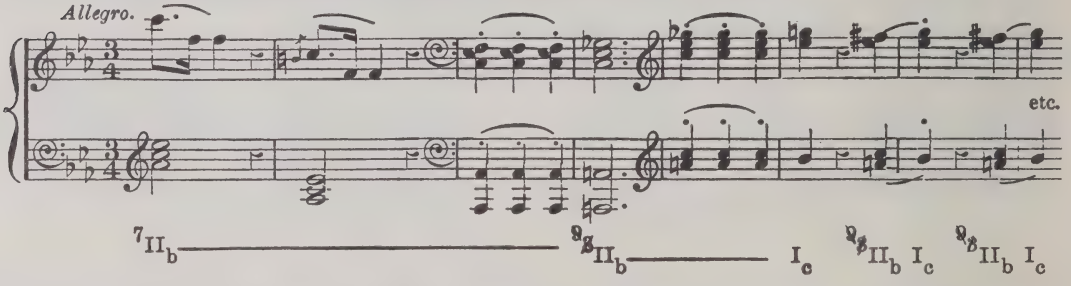


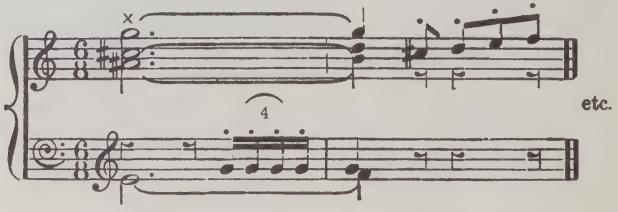
BEETHOVEN.—Sonata (Op. 2, No. 1).



WAGNER.—"Die Meistersinger."

ST. SAËNS.—"Rouet d'Omphale."

In the next example, some interesting "Appoggiatura" uses of the direct Dominant and Supertonic 9ths are shewn:—

ZDENKO FIBICH.—"Stimmungen" (Op. 41, No. 11).

"EXPEDIENT FALSE NOTATION."

4. The well-known passage in Beethoven's Sonata (Op. 31, No. 3)—

is an illustration of the case of a chord being written in two different ways. The Supertonic minor 9th (G♭) in the key of E flat major is, in bars 6 and 7, changed to F𝄪, for the apparent purpose of avoiding the contradiction of the G♭ by G♮—as is necessary in the first instance. The minor 9th (either from the Supertonic or the Tonic root) is frequently written as an augmented 8th from that root (as here), in order to avoid the use of needless accidentals, and the change so made in the method of writing the chord is usually known as *Expedient False Notation.**

The passage from St. Saëns' "Rouet d'Omphale" also, quoted in Sec. 3 is, as a matter of fact, written as follows in the score:—

that is, with a two-fold example of Expedient False Notation, which clearly saves the use of two accidentals (B♮ and D♮) in the following bar.

*** The author of the present volume, in his *Practical Harmony*† (page 82) refers to the matter of Expedient False Notation in these terms:—"Such false notation, however convenient to the *reader* of music, is certainly puzzling at first to those who may be trying to analyse any particular chord. The student must, therefore, carefully ascertain by the context in what key the chord in question is, and then compare the notation of the chord with the notation of the Harmonic Chromatic scale‡ of that key. Any note that differs from this constitutes a case of Expedient False Notation. When

* Why Beethoven did not adopt this in bars 4 and 5 of the above extract is difficult to see.

† Joseph Williams, ‡ *See* Appendix C.

once the true notation has thus been arrived at, no difficulty will be experienced if, in dealing with *inverted* chords of the minor 9th when the root is absent, it is borne in mind that

(i) The presence of the augmented 4th *from the key-note* indicates *Supertonic* root.

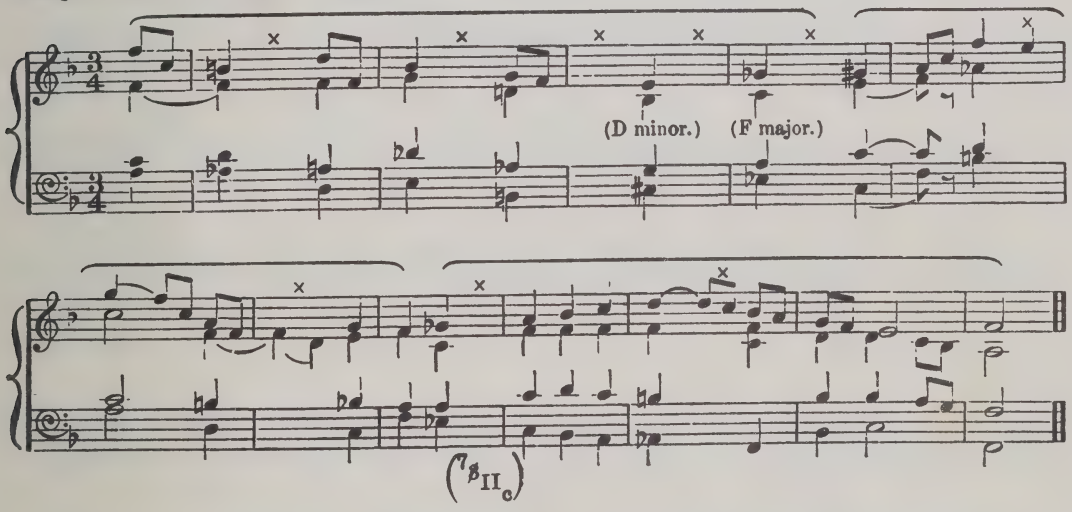
(ii) The presence of the Leading-note indicates *Dominant* root.

(iii) The presence of the minor 7th *from the key-note* indicates *Tonic* root."

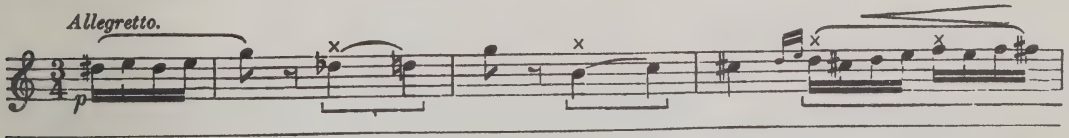
Applying these hints to the foregoing examples, it will be seen that the A♮ in the passage from Beethoven (the augmented 4th from E♭, the key-note) implies Supertonic (F) root, the chord consequently being the first inversion of the Supertonic minor 9th, and the F♯ "false notation" for G♭. Similarly, in the case of the St. Saëns extract, as the Harmonic chromatic scale of C major (in which key the music is) contains a B♭ and a D♭, and not an A♯ and a C♯ (*see* Appendix C), these latter are again instances of "false notation." The B♭ is the minor 7th from the key-note; therefore the chord, correctly notated in Sec. 3, is the first inversion of the Tonic minor 9th, resolving upon Dominant 7th harmony.*

EXERCISES UPON CHROMATIC CHORDS OF THE NINTH.

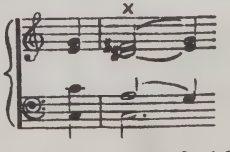
A. Supply suitable resolutions (at each ×) for the chords of the 9th in the following example. Describe each of these chords fully. Do not leave the key of F major, save where a change of key is specially indicated.



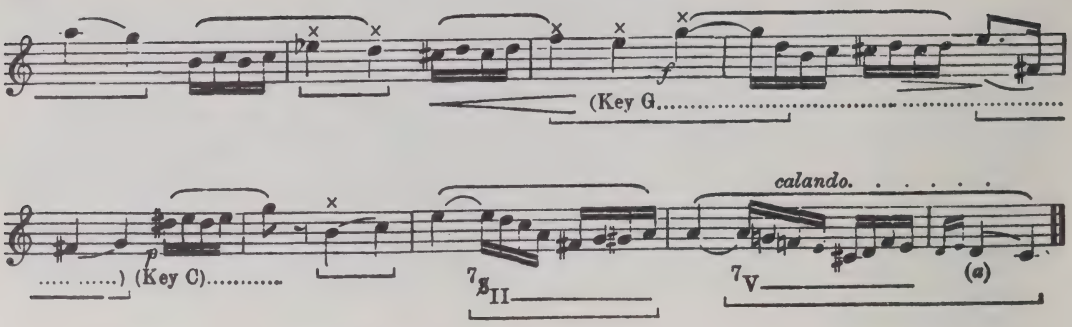
B. Harmonize the following melody, for the Pianoforte. Harmonize only those notes within the ⌊ ⌋. A chord of the 9th (usually without its root) is indicated by a ×.



* In a case such as—

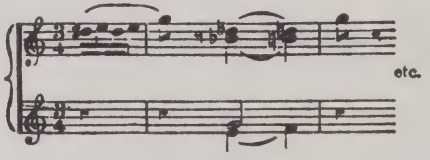


the F♯, D♯ and A in the combination marked × are so clearly felt as merely "Appoggiaturas" over the chord of C major, that it is quite unnecessary (though, of course, *possible*) to regard the chord as the 3rd inversion of the Supertonic minor 9th, with D♯ as false notation for E♭.

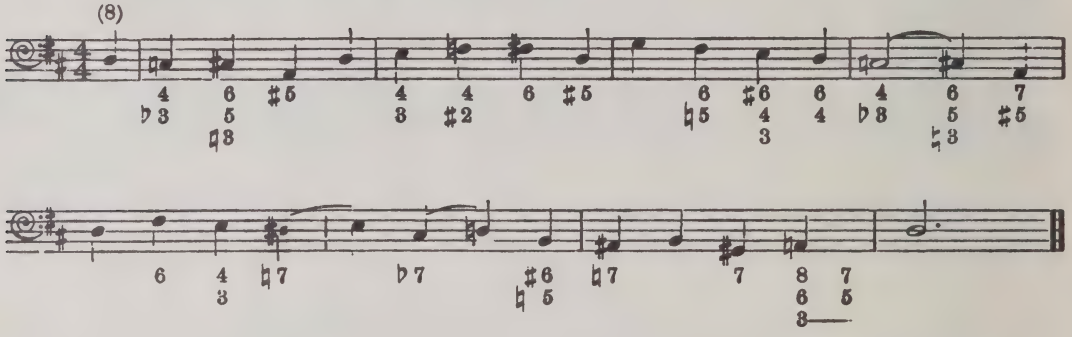


(*a*) Suspension of Dominant harmony over Tonic bass.

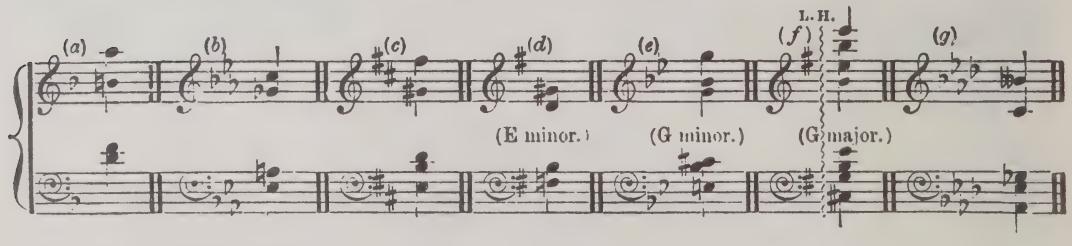
*** Begin the above exercise thus:—



C. Harmonize the following Figured Bass in four parts.* Analyse the harmony throughout.

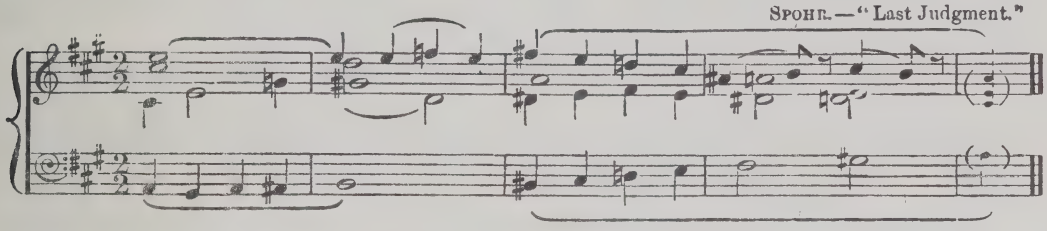


D. Play and write phrases including each of the following chords:—

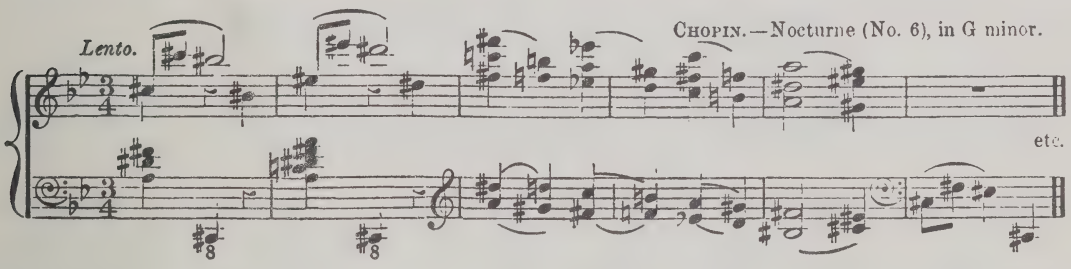


* The melody of the top part will be found to proceed mainly along the Chromatic scale line (ascending and descending).

E. (i) Analyse the harmony of the following passage, pointing out any examples of chords of the 9th with Expedient False Notation. Re-write these according to the notation of the Harmonic Chromatic scale of the key in which they are found.

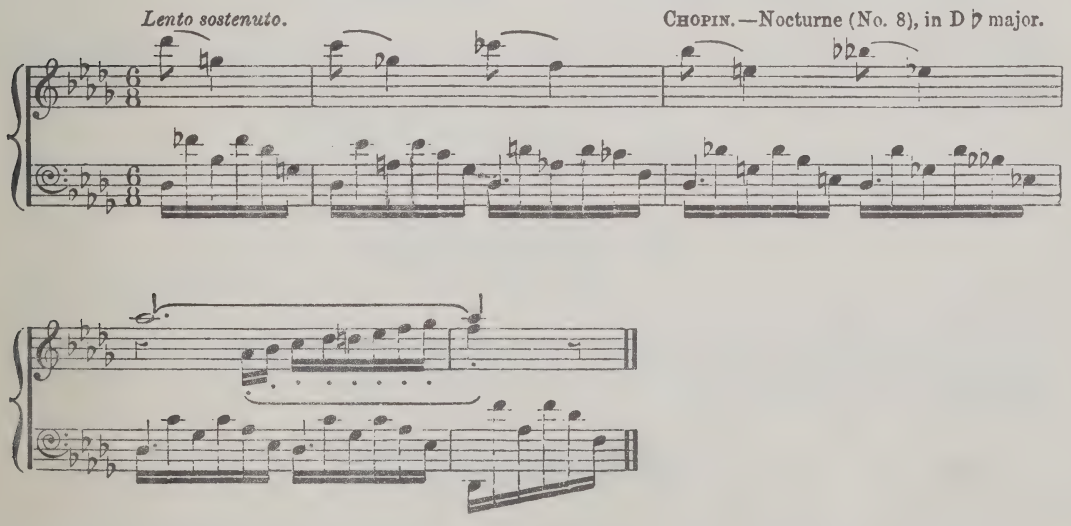
SPOHR.—"Last Judgment."

(ii) Re-write similarly the following extract, with notation in accordance with the derivation of the various chords (in the key of C♯ major). Analyse the harmonies fully.

CHOPIN.—Nocturne (No. 6), in G minor.



(iii) Deal similarly with the following (key D♭ major):—

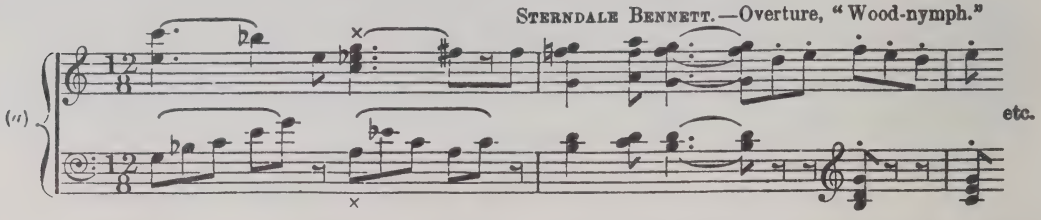
CHOPIN.—Nocturne (No. 8), in D♭ major.



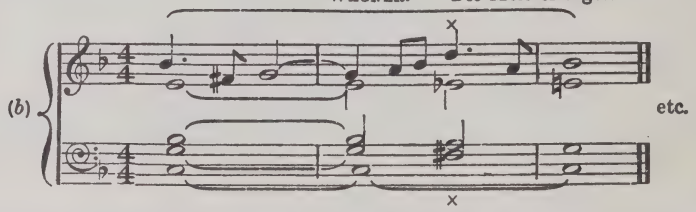
N.B.—The D♭ in the bass throughout this passage is a Tonic pedal in the key of D♭ major, and may be disregarded in the analysis, unless it definitely forms part of the harmony.

II.—SUPERTONIC AND TONIC ELEVENTHS AND THIRTEENTHS.

5. By adding thirds above the Chromatic chords of Supertonic and Tonic 9th, it is, of course, possible to form Supertonic and Tonic 11ths and 13ths, in the same manner as in the case of Dominant harmony. Very few words are necessary upon these rarely-used chords; the 11th and 13th are most frequently met with in the form of Appoggiaturas, and, as such, merely embellish the Supertonic or Tonic chords of the 7th or 9th, *e.g.*—

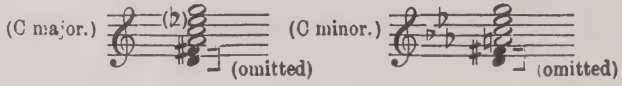
STERNDALE BENNETT.—Overture, "Wood-nymph."

(× Supertonic minor 9th (in key C) in second inversion, with "appoggiatura" 11th (or 4th) resolving on 3rd.)

WAGNER.—"Die Meistersinger."

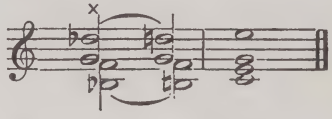


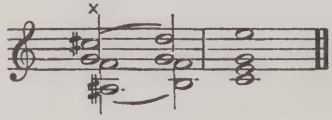
(× Tonic minor 9th (in key F)—F♯ = G♭—with "appoggiatura" 13th (or 6th) resolving by leap upon 3rd of same chord. The C in the bass is a Dominant "pedal.")

6. As an "essential" harmony the *Supertonic 11th* is only found in certain inverted forms (the root and 3rd being omitted), *e.g.*—



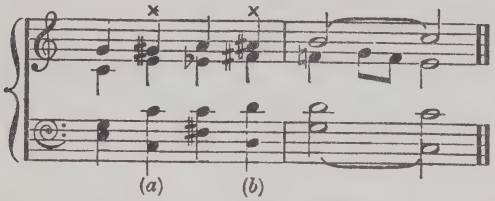
when it is obviously nothing more than a Secondary 7th upon the major 6th of the scale (with its 5th sometimes chromatically lowered). Examples of this chord will be found in Ex. (*g*) in Chapter XXI, Sec. 3; also in Ex. (*b*) in Sec. 5 of the same chapter.

7. The *Tonic 11th* is possible under similar conditions (*i.e.*, without root or 3rd), but—save in the form given below—

it is practically useless. Even then it is extremely doubtful if it is an essential harmony at all, the musical effect being much more that of Dominant 7th harmony preceded by a "double Appoggiatura" (A♯ and C♯), thus:—



than of the 3rd inversion of a Tonic minor 9th and 11th (root C), resolving upon the 1st inversion of the chord of the Dominant 7th. The combination would certainly in the grea majority of cases be written with A♯ and C♯, in preference to B♭ and D♭.

8. The very rare "essential" *13ths upon the Supertonic and Tonic* are mainly found in the form of augmented triads, which are often far more simply and naturally thought of as being the result of "chromatic alterations" of existing major triads, *e.g.*—

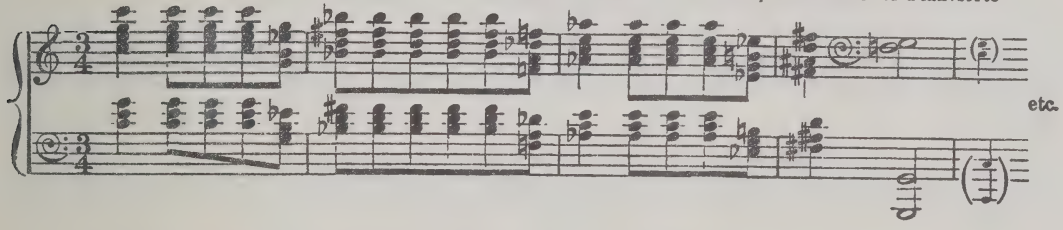


(*a*) Tonic triad with "raised 5th" (or Tonic minor 13th—G♯=A♭—with root and 3rd only).

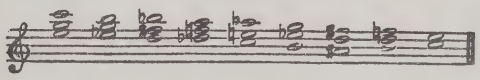
(*b*) Supertonic chromatic triad with "raised" 5th (or Supertonic minor 13th—A♯=B♭—with root and 3rd only).

9. These augmented triads are very useful for the purpose of modulation, as will be seen in Chapter XXIX. Moreover, they have been considerably exploited by modern composers, particularly by Debussy and others of the modern French school, as in the following instance:—

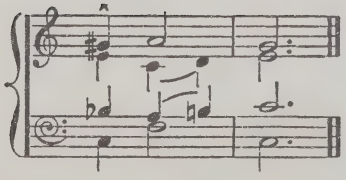
CLAUDE DEBUSSY.—Prélude, from Suite for Pianoforte



Harmonic scheme of the above passage—



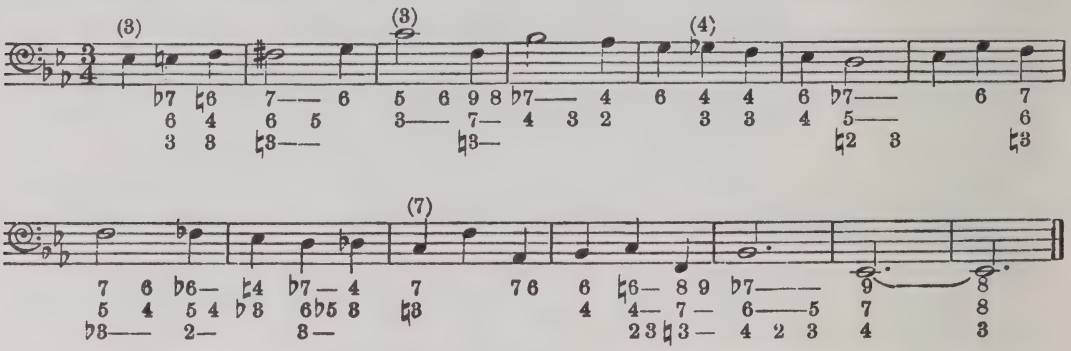
10. A case like this—



has clearly the effect of a Tonic chromatic chord of the 7th (in key C), with its 5th chromatically raised, and it is quite needless (though, of course, possible) to imagine the G♯ to be Expedient False Notation for A♭, and to consider that particular note as a Tonic minor 13th in disguise.

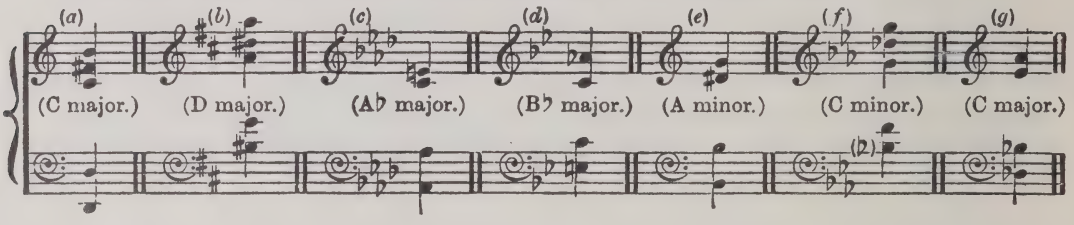
EXERCISES ON SUPERTONIC AND TONIC ELEVENTHS AND THIRTEENTHS.

I. Harmonize the following Figured Bass, analysing the harmony throughout.



N.B.—In Figured Basses the 11th and 13th are almost invariably indicated as a 4th and a 6th from the root, in the direct position of the chord. The 13th, in *any* position of the chord, usually sounds best when it is placed in the highest part (or at any rate, above the 7th). In this connexion, therefore, it should be remembered that, whenever a 7 and a 6 occur in the same set of figures (as in bars 1 and 2 of the above exercise), the note represented by the 6 should be placed *above* the 7th.

II. Write phrases for the Pianoforte, introducing the following chords :—

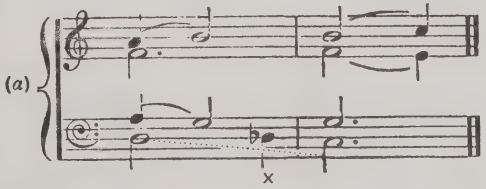


CHAPTER XXVIII.

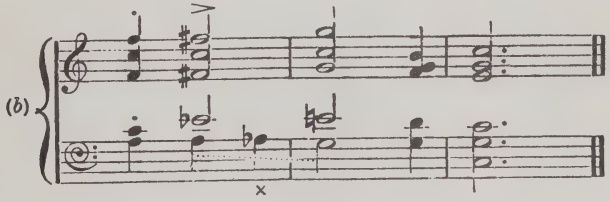
CHROMATICALLY-ALTERED CHORDS (*Cont^d.*).

THE CHORD OF THE AUGMENTED SIXTH.

1. The chord of the Augmented Sixth provides another instance of a chord produced by "chromatic alteration." In example (*a*) below—

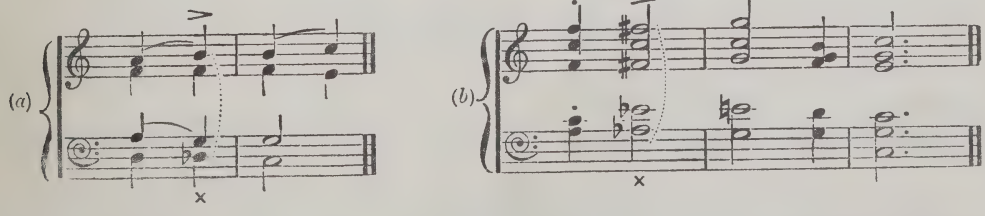


the 5th of the chord of the Dominant 7th, occurring on the second beat of bar 1, is "decorated" on the third beat by a chromatic passing-note (D♭), on its way down to the root of the Tonic chord in the next bar. Similarly, in example (*b*)—



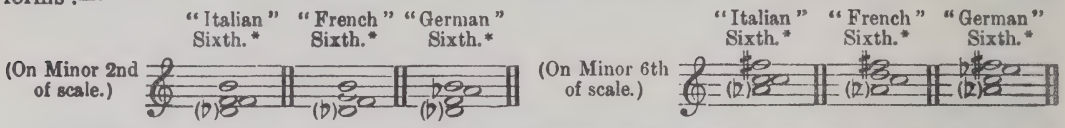
the 5th of the chord of the Supertonic minor 9th is "decorated" by a chromatic passing-note (A♭), inserted between the A and the G in the bass.

2. On the plan described in Chapter XXII, the D♭ and the A♭, instead of being taken as passing-notes, may be *substituted* for the diatonic notes from which they spring, thus :—

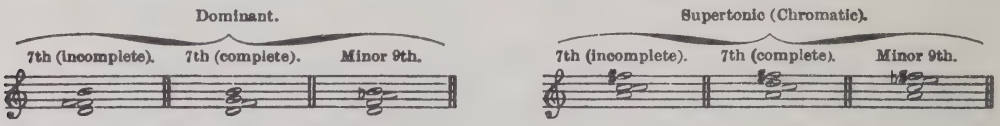


This means forming in each case a chord in which there appears the striking interval of an Augmented 6th (as shewn by the dotted lines).

3. These harmonies are described as chords of the Augmented Sixth upon the minor 2nd and minor 6th degrees of the major or minor scale respectively, and are found in the following forms :—



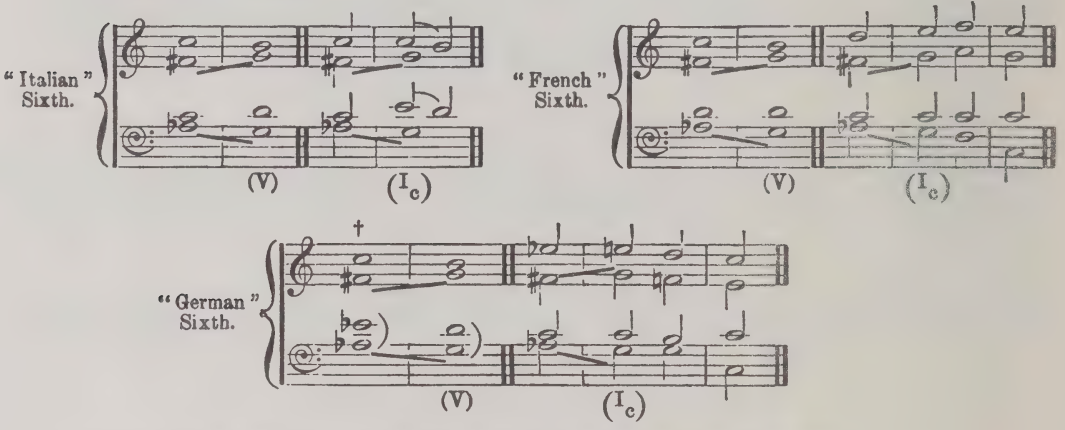
N.B.—In each instance the ♭ in brackets indicates the chromatically-altered note in the above examples, which are obviously merely variants of Dominant or Supertonic harmony :—



4. The chord of the Augmented Sixth upon the minor 6th of the scale is far more often met with than that upon the minor 2nd. Its most usual resolutions are those common to the Supertonic discord of which it is a varied form (as shewn above), viz., upon—

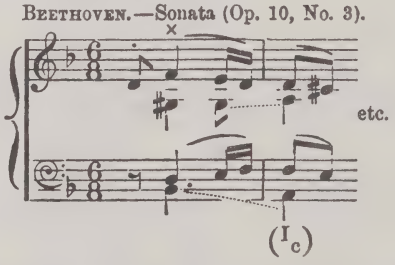
(i) Dominant harmony.

(ii) Tonic harmony.



N.B.—All these examples are equally available in the Minor form of the key.

The following is a beautiful illustration of the "German" 6th (probably the most common form of the chord), resolving upon Tonic harmony :—



N.B.—All the above examples shew that the natural tendency of the two notes forming the actual interval of Augmented 6th is to *move in contrary motion to one another*, by step of a semitone.

---

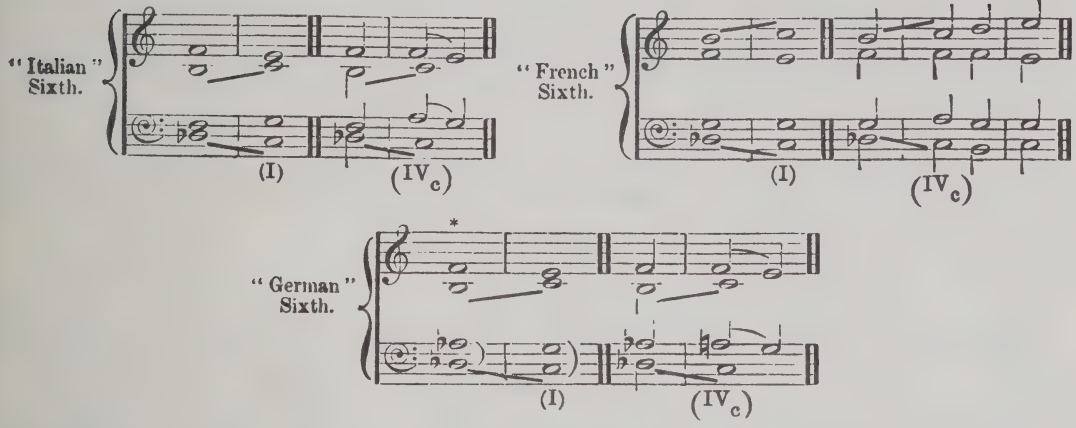
* The three most usual forms of the chord are frequently described by these special names. They have little or no meaning, but are perhaps a convenient means of description and of memorization.

† The consecutive 5ths here, by step of a semitone, are *possible*, if not always desirable.

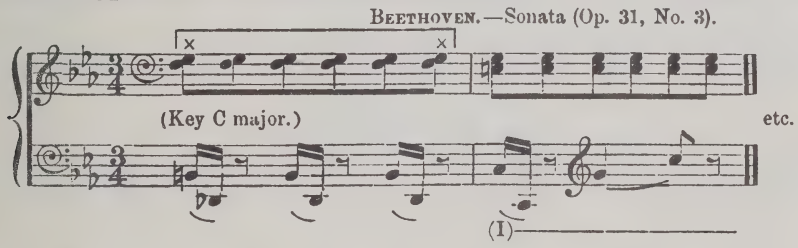
5. The Augmented Sixth chord upon the minor 2nd of the scale, being an "altered" form of Dominant harmony, resolves (as is the case with a Dominant discord) upon—

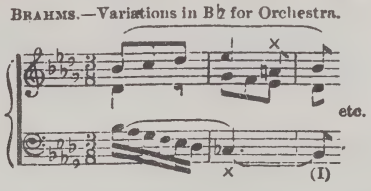
(i) Tonic harmony.

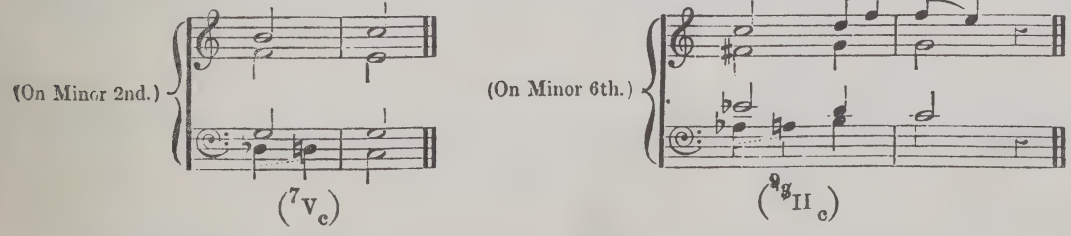
(ii) Subdominant harmony.



Beethoven again supplies us with a familiar instance—this time the "French" Sixth :—



N.B.—Although the examples given above are all possible in the minor form of the key, the Augmented Sixth on the minor 2nd does not then resolve so happily upon the Tonic chord, as in the major form ; the following is, however, an instance of this somewhat rare resolution :—

6. The Augmented Sixth chord resolves at times upon the harmony of which it is the chromatically-altered form, when the "altered" note has largely the character of an Appoggiatura, *e.g.*—

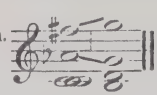


The D♭ and A♭ would then be frequently written as C♯ and G♯ respectively.

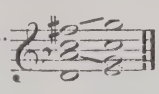
* *See* Footnote to Sec. 4.

7. The inversions of the chord are possible :—

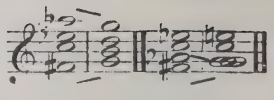
"Italian" Sixth. (1st inv.)



"French" Sixth. (2nd inv.)



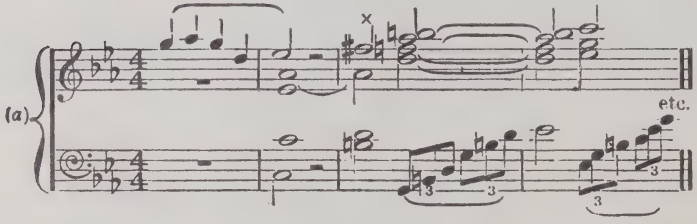
"German" Sixth. (3rd inv.)

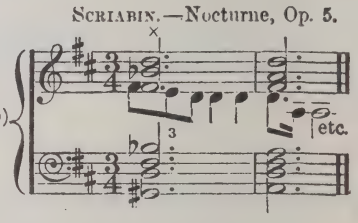


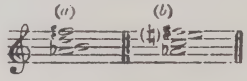
—and so on. Also similarly with the Augmented Sixth upon the minor 2nd. It is, however, only the "German" Sixth which is at all frequently found in an inverted form.

8. Two less used forms of the chord of the Augmented 6th upon the minor 6th of the scale are illustrated by the following examples :—

HAYDN.—"Creation."

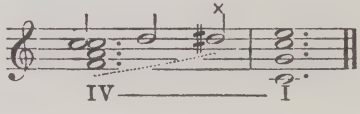


SCRIABIN.—Nocturne, Op. 5.

Upon the minor 6th of key C the above chords would appear thus :—



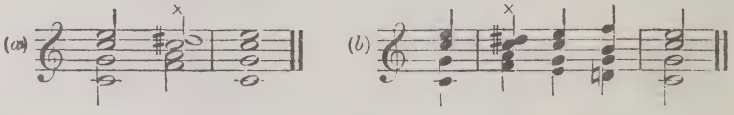
(Compare these with the examples in Sec. 3.)

9. A combination similar in construction to the "German" chords of Augmented 6th spoken of above can be formed upon the Subdominant of the major key, as follows :—

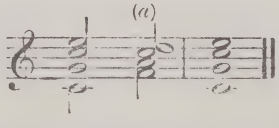


× Chromatic passing-note, forming interval of augmented 6th from the root of the Subdominant chord.

This combination may be used as an independent chord resolving upon Tonic harmony :—



and is virtually a chromatically-altered version of the chord marked (*a*) below :—



N.B.—Some theorists regard the D♯ as Expedient False Notation for E♭, and describe the chord as the 3rd inversion of the Dominant 9th, 11th and 13th, but this is a cumbersome explanation. (*See* Chapter XXV, Sec. 9, Ex. II.)

EXERCISES UPON THE CHORDS OF THE AUGMENTED 6TH.

A. Play (and write from memory) the following progressions in the usual way, transposing them into all keys.

N.B.—The chord of the Augmented 6th upon the minor 6th of the major scale is indicated thus, $^{6}_{\flat}\text{VI}$; that upon the minor 2nd, thus, ^{6}II. The abbreviations It., Fr., Ger. imply respectively the Italian, French and German forms of these chords.*

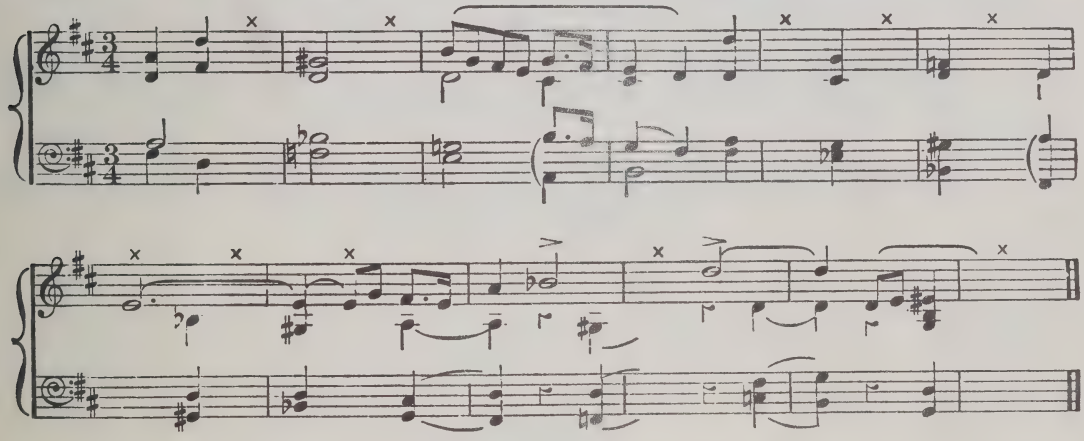
It. Fr. Ger.

$^{6}_{\flat}\text{VI}$ V I ; $^{6}_{\flat}\text{VI}$ I_c ^{7}V I ; $^{6}_{\flat}\text{VI}$ I_c $^{7}\text{V}_d$ I_b ;

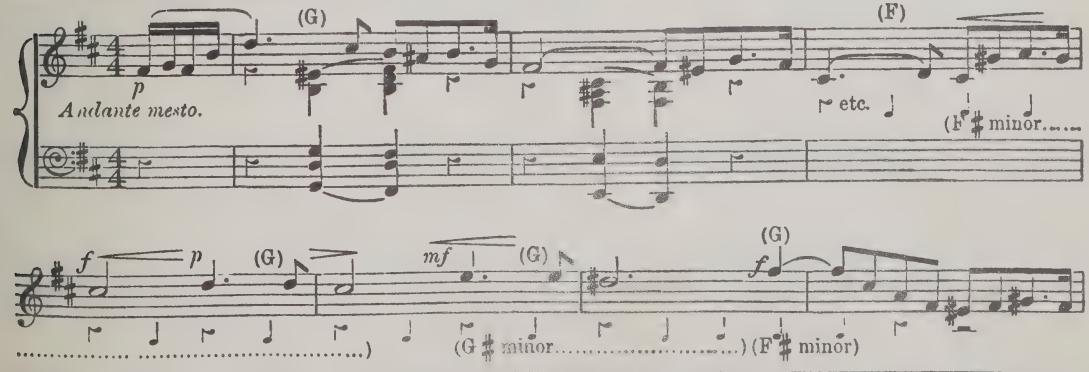
It. Fr. Ger.

I ^{6}II I ; $^{7}\text{V}_c$ ^{6}II IV_c I ; I_b $^{8}\text{V}_c$ ^{6}II IV_c $^{7}\text{V}_b$ I .

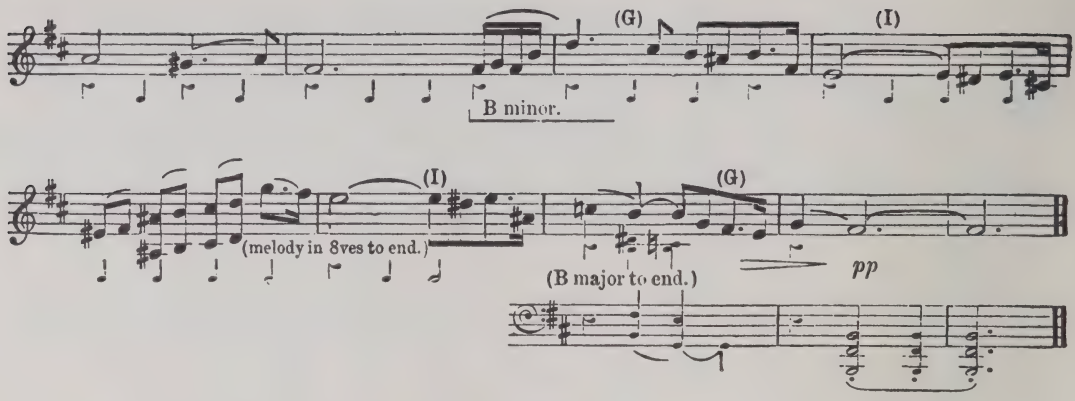
B. Precede and follow each chord of the Augmented 6th by a suitable harmony :—



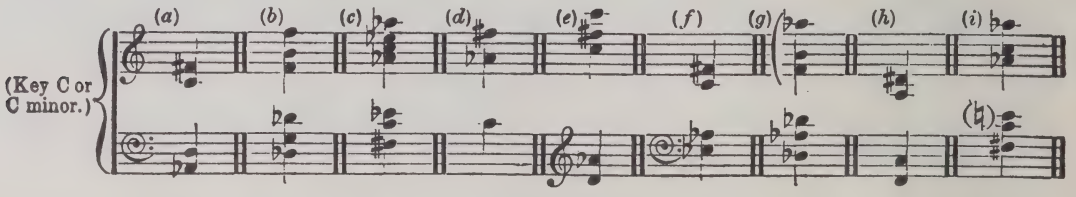
C. Harmonize the following melody in full harmony for the Pianoforte. Harmonize only where indicated by the small notes beneath the melody, and introduce a chord of the Augmented 6th (direct or inverted) wherever the letters I, F and G (signifying an Italian, French and German 6th respectively) occur :—



* The stroke from left to right through the VI is actually not necessary in the minor key, as the sixth degree of the scale is already a *minor sixth* from the Tonic. As, however, the exercises in Sec. **A** are intended to be worked in both major and minor keys, it is convenient to let the one indication, $^{6}_{\flat}\text{VI}$, represent this particular chord of Augmented 6th in all cases.



D. Play and write phrases and sentences introducing the following harmonies. Transpose them into various keys, major and minor.



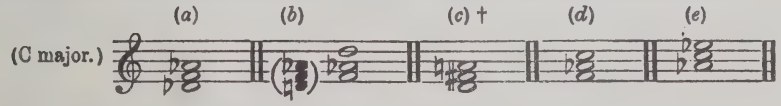
CHAPTER XXIX.

MODULATION (*Cont^d.*).

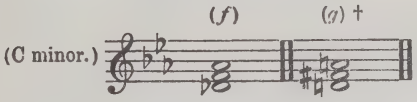
I.—CHROMATIC PIVOT-CHORDS. II.—ENHARMONIC MODULATION.

1. The triads formed by the process of "chromatic alteration" * are often particularly useful for the purpose of modulation. It will be remembered that the more familiar and frequently-used of these chords are :—

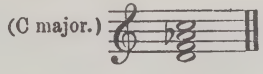
(i) *Major key.* (*a*) The major triad on the lowered 2nd, (*b*) the diminished triad on the Supertonic (taken only in the first inversion), (*c*) the major triad on the Supertonic,† (*d*) the minor triad on the Subdominant, and (*e*) the major triad on the lowered 6th, *e.g.*—



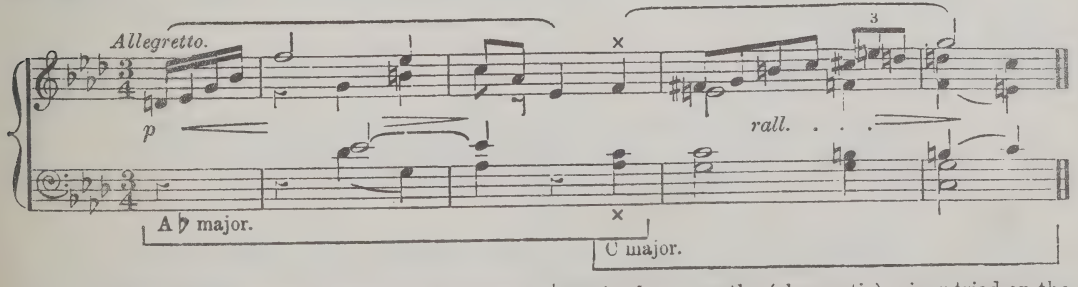
(ii) *Minor key.* (*f*) The major triad on the lowered 2nd, and (*g*) the major triad on the Supertonic, *e.g.*—



2. Further, certain Secondary chords of the 7th are often found with similar chromatic alterations, of which the most common instance is that of the Secondary 7th on the Supertonic of the major key, with a lowered 5th, *e.g.*—



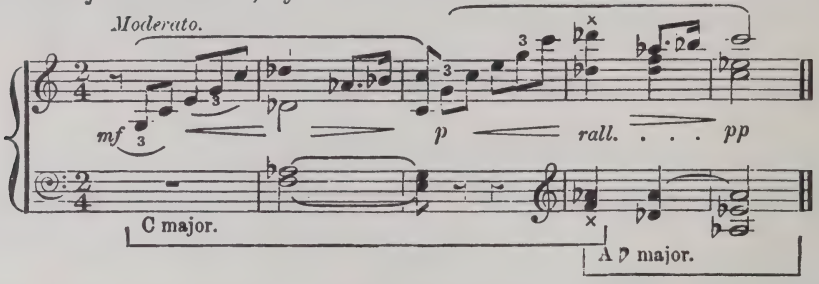
3. The use of chromatic chords such as the foregoing enables the principle of the "pivot-chord" in modulation to be considerably extended, for it is then possible (i) to approach a chord as a diatonic harmony in the first key, and to quit it as a *chromatic* harmony in the second, *e.g.*—



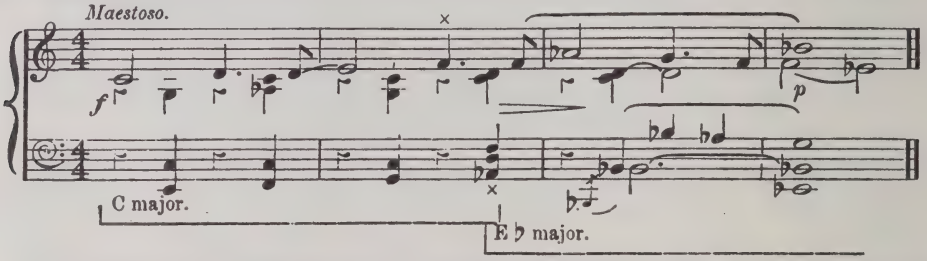
** Here the (diatonic) Submediant triad of A♭ major becomes the (chromatic) minor triad on the Subdominant of C major, and is quitted as such in that key.

* *See* Chapter XXII. † Discussed in Chapter XXVI as a chord borrowed from the Dominant key.

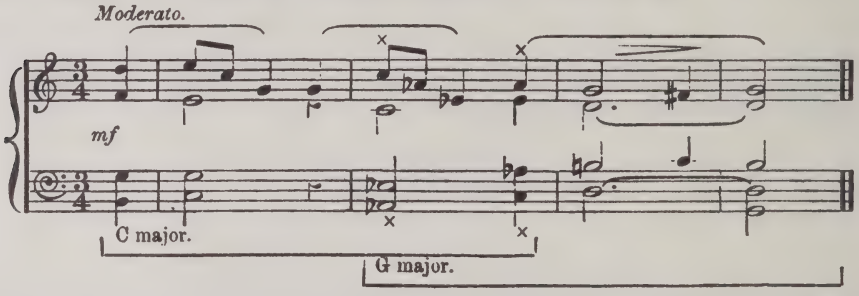
(ii) To approach a chord as a chromatic harmony in the first key, and to quit it as a *diatonic* harmony in the second, *e.g.*—



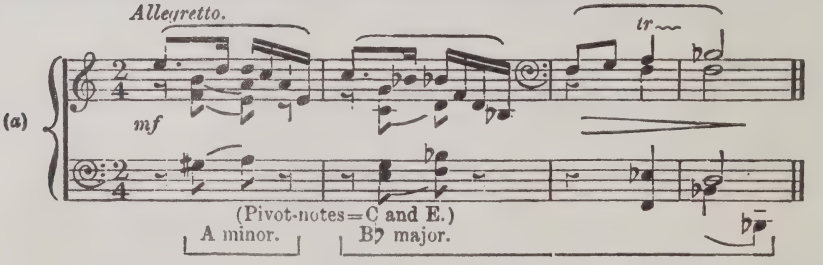
*** Here, conversely, the (chromatic) triad on the "lowered" 2nd of the scale of C major becomes the (diatonic) Subdominant triad of A ♭ major, and is quitted as such.



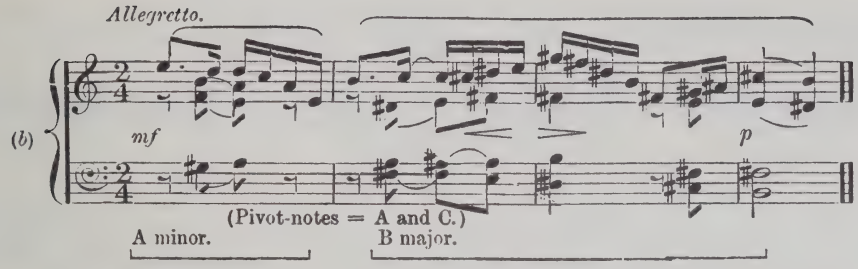
*** In this instance the 2nd inversion of the Secondary 7th on the Supertonic of C major (with flattened 5th) is quitted as the 3rd inversion of the Dominant major 9th of the key of E ♭ major.

(iii) To regard the "pivot-chord" as chromatic in *both* keys, *e.g.*—

*** In this case the chromatic triad on the "lowered" 6th of C major becomes the chromatic triad on the "lowered" 2nd of G major.

4. Further, the plan of making a single-note the bond of union between one key and another, may be adopted where the "common note" is found in (say) the Tonic chord of the first key and a *chromatic chord of the 7th or 9th* in the second key, *e.g.*—



*** Here two pivot-notes, C and E, are found in (i) the Tonic chord of A minor, and (ii) the Supertonic chromatic chord of the 7th in B ♭ major.

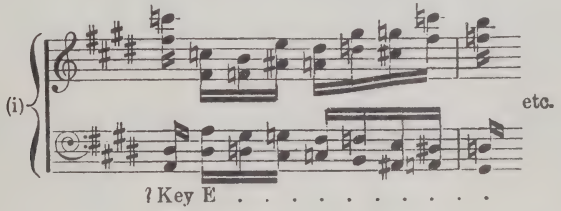


*** In this case the pivot-notes A and C are found in (i) the Tonic chord of A minor, and (ii) the Tonic minor 9th of B major.

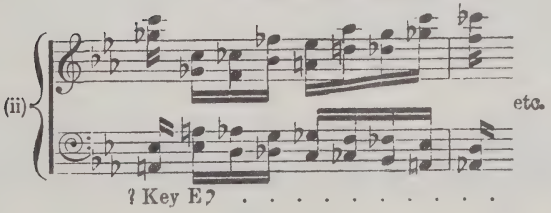
ENHARMONIC MODULATION.

5. Modulation by enharmonic* means is most readily accomplished by the chords of Diminished 7th and Augmented 6th. The chord of the Diminished 7th is by its nature an ambiguous chord, and—unlike the Dominant 7th—is not in itself characteristic of any particular tonality, as will be seen from the following examples:—

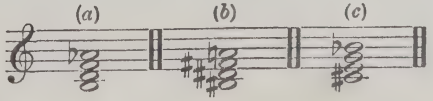
CHOPIN.—Etude in E (Op. 10).



Ibid. (with changed notation).



The fact is that there are actually only three Diminished 7th chords on the Pianoforte or Organ keyboard, *e.g.*—



but that each of these may in practice belong to every one of the twelve major and twelve minor keys by change of notation, and consequent *change of root.* Even without such change of root any Diminished 7th chord will be found in three major keys and three minor keys. For

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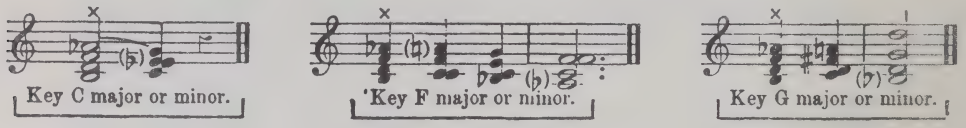
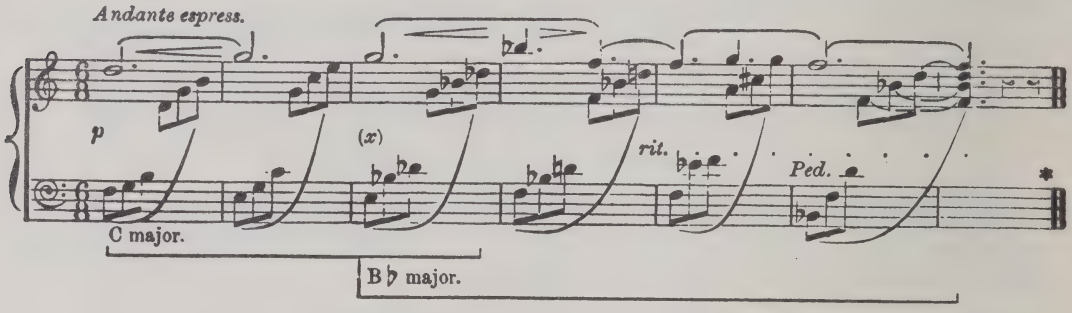
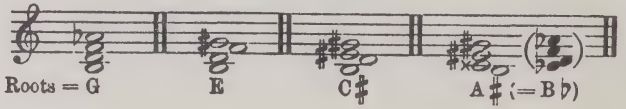
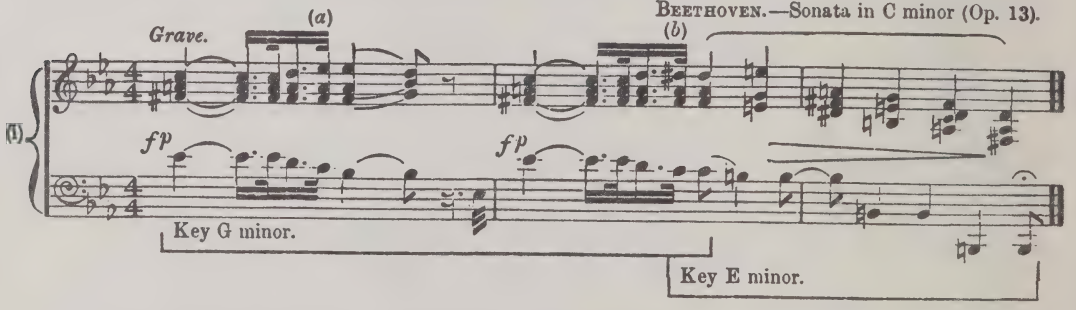
* *See* Glossary.

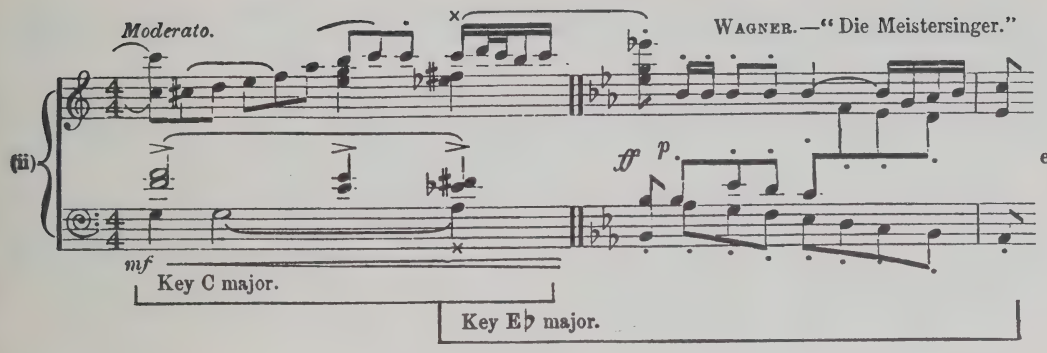
example, chord (*a*) the first inversion of a minor 9th with root G, could clearly occur in the keys of C, F and G as Dominant, Supertonic and Tonic minor 9th respectively, *e.g.*—



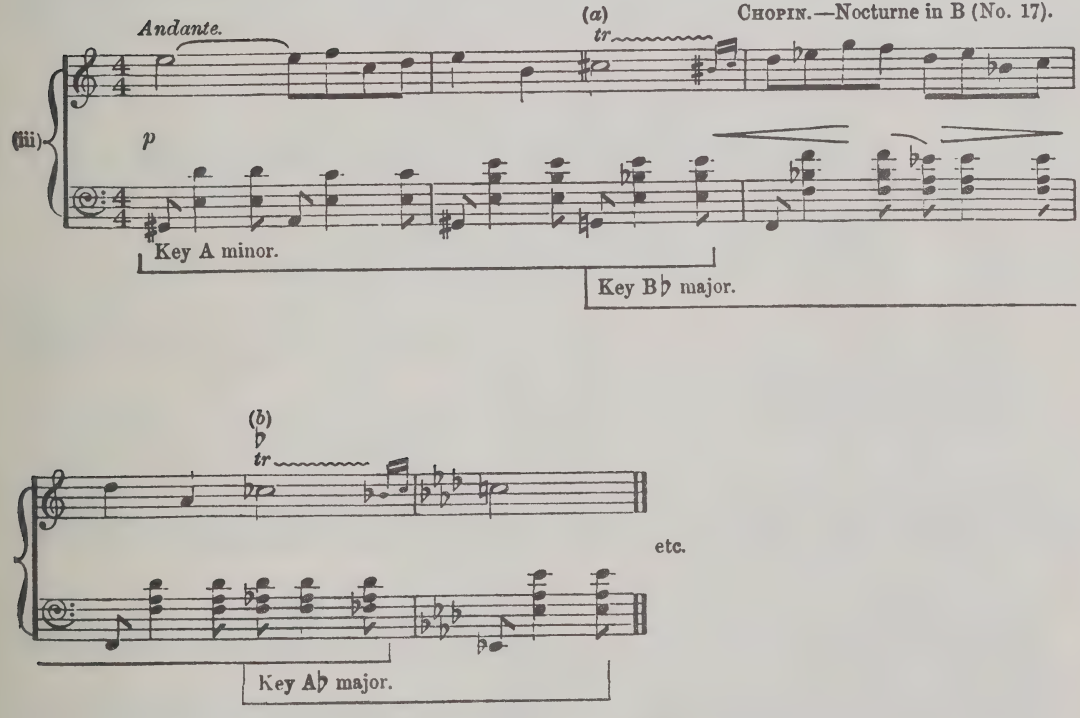
a modulation between any of the above-named keys being, as a consequence, rendered possible. The following passage shews a modulation from C major to B♭ major by means of the chord marked (*x*), which is approached as the 1st inversion of the Tonic minor 9th in the key of C, and quitted as the 1st inversion of the *Supertonic* minor 9th in the key of B♭.

6. But chord (*a*) in Sec. 5 may—by enharmonic change of one or more of its notes—be thought of as being derived from E, C♯ and A♯ (=B♭) roots respectively :—



each note therefore in turn appearing as the 3rd, 5th, 7th and minor 9th. Moreover, as each of the above roots could be regarded as a Dominant, a Supertonic or a Tonic, and could therefore belong to three major or three minor keys, it will be seen that it would be possible to use this (or any other) chord of the Diminished 7th as a means of modulation between any two major or minor keys. A few enharmonic modulations from standard works are given below :—

*** In the foregoing extract the chords (*a*) and (*b*)—identical upon the Pianoforte keyboard—are approached each time in the same manner, viz., as the 3rd inversion of the Dominant minor 9th in the key of G minor (root D). At (*b*), however, an enharmonic change of E♭ to D♯ is made, by which the chord becomes the 4th inversion of the Dominant minor 9th in the key of E minor (root B♮). The unexpected and strikingly beautiful resolution of the bass-note (*c*) upon the root (B♮) will hardly escape observation.

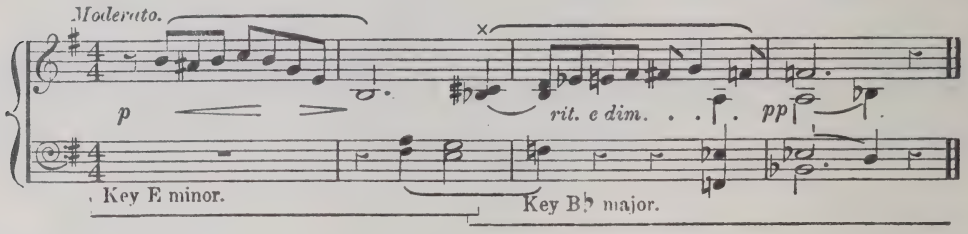


*** Here the chord marked × is approached as the 2nd inversion of the Supertonic minor 9th in the key of C (root D), and—by an implied enharmonic change of the F♯ to G♭—is quitted as the 1st inversion of the Supertonic minor 9th in the key of E♭ major (root F), resolving upon the Tonic triad in its 2nd inversion.

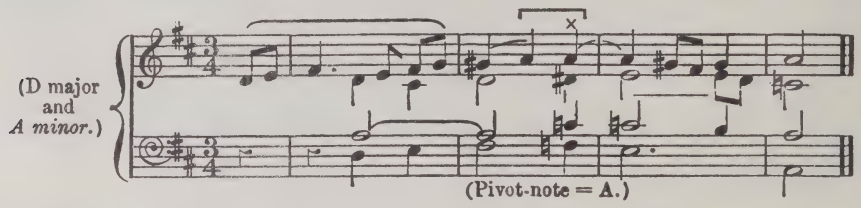


*** Two instances of modulation by means of the Diminished 7th harmony are exemplified by the above extract from Chopin. The chord marked (*a*), approached from A minor as the 3rd inversion of the Tonic minor 9th (root A) is quitted enharmonically as the 2nd inversion of the Supertonic minor 9th (C♯ = D♭) in the key of B♭ major. Further, the chord marked (*b*), approached as the 2nd inversion of the Tonic minor 9th in B♭ major (root B♭) is resolved (as Supertonic minor 9th) into the key of A♭, no enharmonic change here taking place, the root remaining the same.

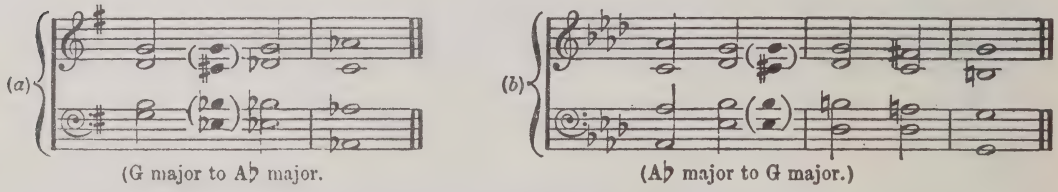
7. Although, as the preceding examples will have shewn, it is possible to effect an enharmonic modulation by means of a Diminished 7th chord derived from the Dominant, Supertonic or Tonic root of either key, the student will do well to remember (until he is to some extent experienced in the matter) that the safest and most successful modulation of the kind will be made by means of the Supertonic 9th of the *new* key, *e.g.*—



*** The chord marked × is, in the key of B♭ major—the *new* key—the 1st inversion of the Supertonic minor 9th (root C). The 9th (D♭) is written C♯ to avoid the necessity of contradicting the D♭ by D♮ in the following bar, and is an example of Expedient False Notation.

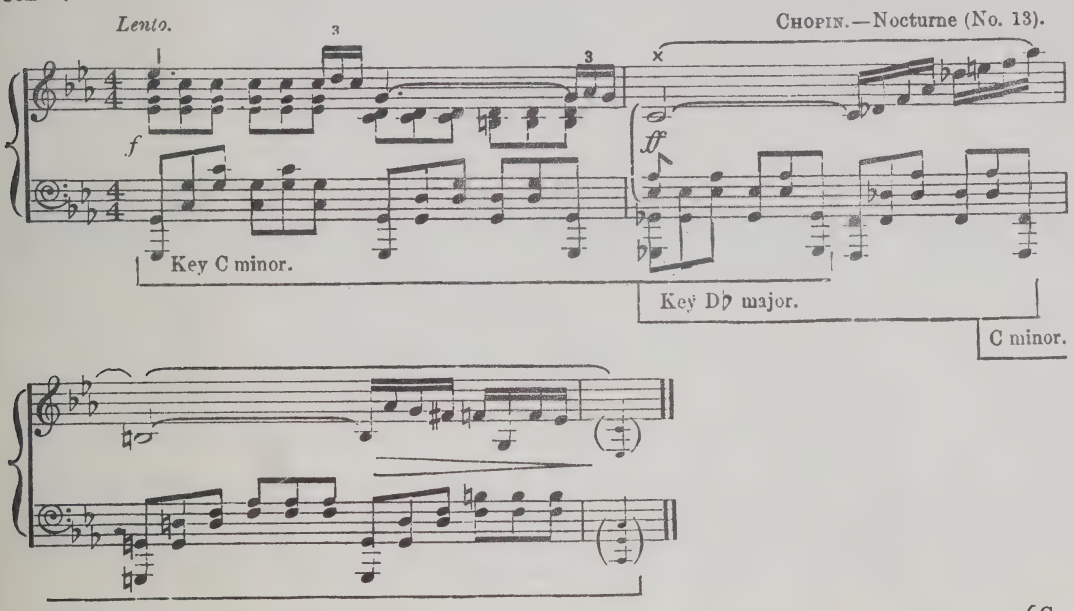
8. The chord of the Augmented 6th (German form) is another means by which modulation may be carried out. By use of the "pivot-note" connexion the Augmented 6th upon the minor 6th of the *new* key may often be introduced in such a way as to connect two fairly distant keys very happily, *e.g.*—

Great importance attaches, in such modulations, to the smooth and musical movement of the bass at the point of approach to the Augmented 6th chord.

9. Moreover, by enharmonic change of the Augmented 6th itself, the chord of the "German 6th" becomes a fundamental chord of the 7th, and it is obvious that a modulation can be effected by approaching the chord in one way and quitting it in the other, *e.g.*—



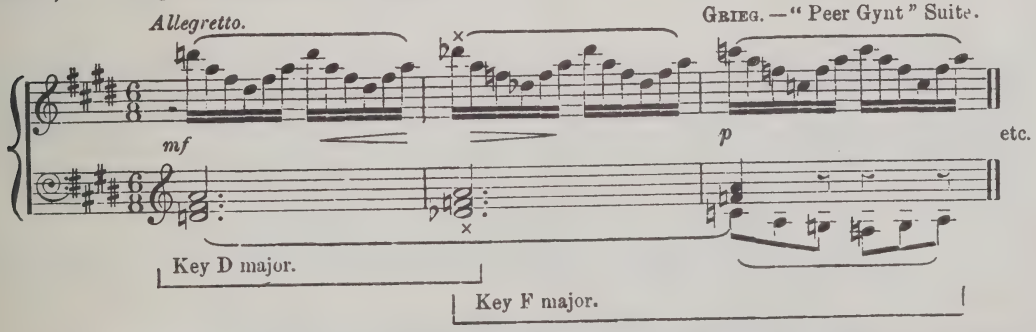
In example (*a*) the German 6th upon the minor 6th degree of G major becomes, by enharmonic change of C♯ to D♭, the Dominant 7th of A♭ major. The reverse process is seen in example (*b*). It should be clear that modulations to other keys could be made equally well by regarding the fundamental 7th as a Supertonic or Tonic chromatic chord of the 7th, instead of as a Dominant 7th.

Chopin has a remarkable instance of an enharmonic modulation by means of the "German 6th":—

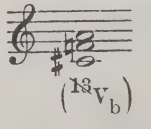


*** Here the chord marked × is led up to as the last inversion of the German 6th in C minor {C, A♭, E♭, F♯} and—by enharmonic change of F♯ to G♭—is quitted as the 3rd inversion of the Dominant 7th in the key of D♭. It will be noticed that the chord of D♭ itself is then used as the "pivot-chord" between the keys of D♭ and C minor, in which latter key it forms the "Neapolitan 6th."

10. Yet another means of modulating enharmonically is to be found in the Augmented triads which are usually classified as chords of the 13th (with only root, 3rd, and minor 13th present).* Grieg has a charming instance of this:—

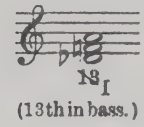


*** In the above extract the modulation from the key of D to the key of F is brought about by means of the chord marked ×, which is approached as a Dominant minor 13th in D major:—



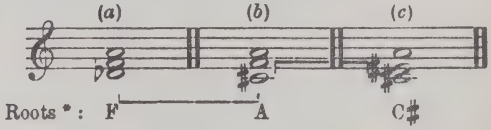
* *See* Chapter XXVII.

and quitted (by enharmonic change of C ♯ to D ♭) as a Tonic minor 13th in F major :—



(13th in bass.)

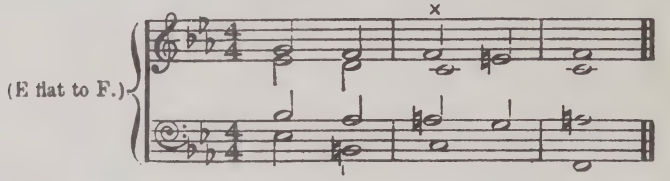
11. The ambiguous nature of these Augmented triads makes them peculiarly adaptable for the purposes of modulation, for it is clear that any position of one of them may be treated as the enharmonic equivalent of another, and quitted accordingly, *e.g.*—



N.B.—It is obviously possible to consider chord (*a*) as being derived from a Dominant, a Supertonic, or a Tonic root, belonging as a consequence to the keys of B ♮, E ♭, or F (major or minor). As each of the chords (*b*) and (*c*) could, on a similar principle, be found in an equal number of keys, it will be seen that (*a*) or its enharmonic equivalent could actually be found in nine major and nine minor keys, a modulation between any two of which could be effected by its means.

12. It will be well here to warn the student against the too frequent use of modulation by enharmonic means. The ease with which changes of key can thereby be made, when once the trick has been learnt, tempts many an inexperienced writer to fly to this particular resource at the least suggestion of a difficulty. Let it be said that such a proceeding will usually prove to be inartistic and mechanical to a degree. An *occasional* enharmonic modulation may be of the greatest possible beauty; the frequent introduction of this special form of effect, however, creates a feeling of restlessness and of artificiality which is peculiarly irritating to the really musical mind.

13. In connexion with the subject of this present chapter, viz., modulation between keys *not* in the first degree of relationship to one another, the following hint is specially useful and appropriate:—"If the new key contains any particular note which jars on the old key, then this note should be carefully withheld as long as possible, *e.g.*—the note A ♮ is so foreign to the key of E flat (in the succeeding example) that the third chord will sound harsh and unpleasant" :—



"By playing a semibreve G in the tenor of bar 2 (thus avoiding the sudden introduction of the A ♮) the progression becomes quite smooth and musical." (Percy C. Buck—"Unfigured Harmony.")

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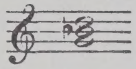
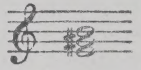
* On the assumption that these chords are derived from the complete chord of the minor 13th.

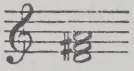
EXERCISES.

A. (i) Modulate (first in plain four-part harmony, and afterwards in some more decorated scheme) by means of the following chord * 

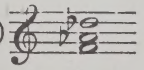
(*a*) From F major to D major.
(*b*) „ B♭ „ „ D „
(*c*) „ D „ „ F „
(*d*) „ D „ „ E♭ „

(ii) Modulate similarly by means of the following chord * 

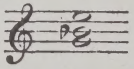
(*a*) From A major to D minor.
(*b*) „ D minor „ A „
(*c*) „ D „ „ G♯ „
(*d*) „ E major „ D „

(iii) Modulate similarly by means of the following chord * 

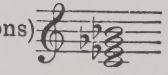
(*a*) From D major to F♯ major.
(*b*) „ A „ „ F♯ „
(*c*) „ D „ „ C minor.
(*d*) „ C♯ „ „ G major.

(iv) Modulate similarly by means of the following chord (Neapolitan 6th) 

(*a*) From C minor to D♭ major.
(*b*) „ D♭ major „ C „
(*c*) „ C „ „ A♭ „
(*d*) „ A♭ „ „ C minor.

(v) Modulate similarly by means of the following chord 

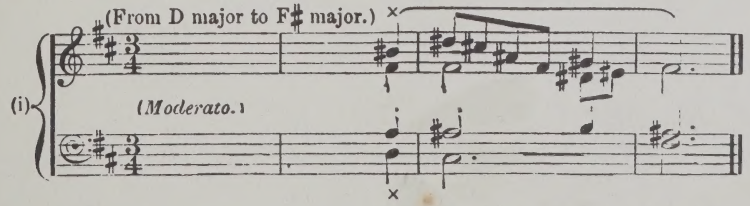
(*a*) From D major to F major.
(*b*) „ F „ „ D „

(vi) Modulate similarly by means of the following chord (or one of its inversions) 

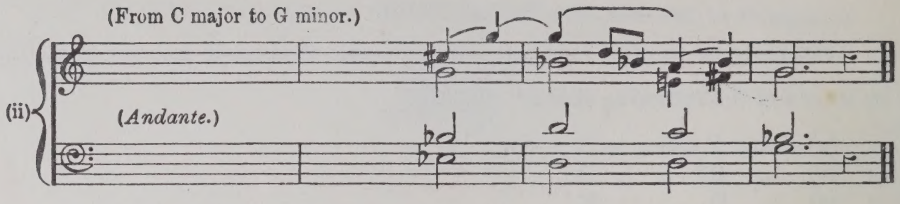
(*a*) From B♭ major to D♭ major.
(*b*) „ D♭ „ „ B♭ minor.

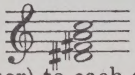
B. Modulate between C major and F♯ major by means of a triad chromatic in both keys.

C. Lead up to the chord marked with a cross (the German 6th in the *new* key), in such a way as to modulate naturally and effectively between the two specified keys in each case :—

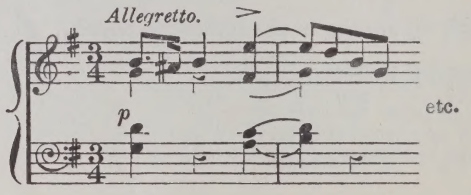


* The "pivot-chord" may, in these instances, be placed in whatever position may be the most suitable.



D. Modulate, by means of the enharmonic change (where necessary) of the notes of the following chord  (which may be placed in any convenient position), from the key of E (major or minor) to each of the remaining eleven keys (major or minor).

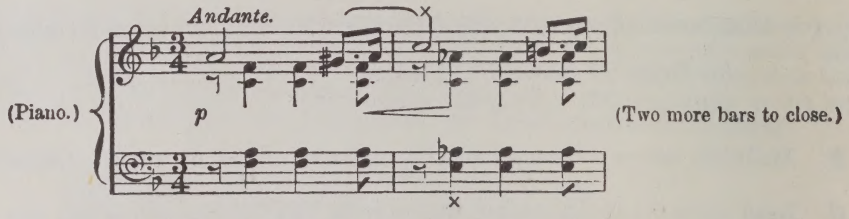
E. Write sixteen bars for the Pianoforte, commencing thus :—

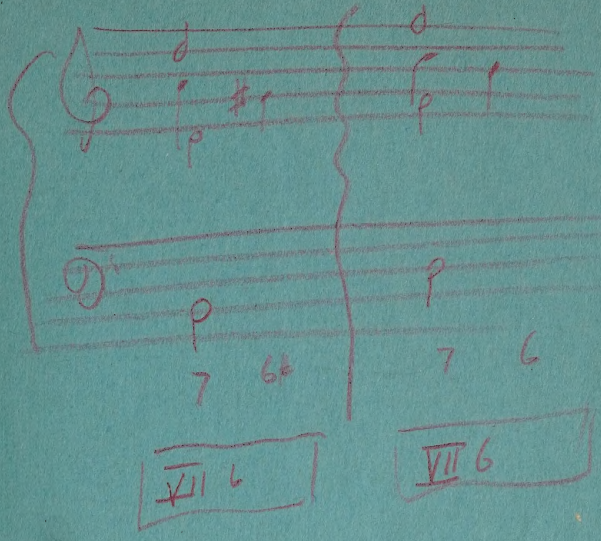


Modulate through E minor to B minor, in which key the music should come to a close at the eighth bar ; then continue through C major and A♭ major, returning to G major by means of an enharmonic change of the chord of the Diminished 7th (*see* recommendation in Sec. 7 on page 252).

F. By means of the enharmonic change of the "German 6th" on the minor 6th degree of E major, modulate into F major, returning to E major by the Neapolitan 6th of that key.

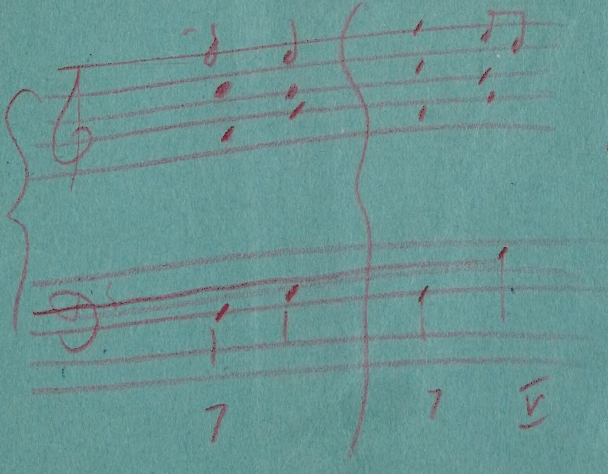
G. Complete this passage in four bars, modulating (i) to A♭ major, (ii) to G♭ major, (iii) E major, (iv) C major, by means of the enharmonic change of the chord marked × (four examples in all) :—





Not 7th chord but 7-6

also with another form of 7 (concordant with 6)!



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